

AN  
ENQUIRY  
INTO THE  
Nature of the Human SOUL;  
WHEREIN THE  
Immateriality of the SOUL  
Is evinced from the  
PRINCIPLES  
OF  
REASON and PHILOSOPHY.

Ἐγὼ δὲ τί βέλομαι; παλαμαθεῖν τιτὴ φύτιν, καὶ ταύτη ἔπεισθαι. Epict.  
Ζητῶ γὰρ τιτὴ ἀλήθειαν, ὑφ' ἧς εἰδὲς πρότερον ἐβλάβην. Marc. Antonin.

L O N D O N :

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ENQUIRY

INTO THE

Nature of the Human Soul;

WHEREIN THE

Immortality of the Soul



PRINCIPLES

REASON AND PHILOSOPHY.

## Advertisement to the R E A D E R.

**T**HE nature of the subject treated on in the following sheets, and the earnest desire of the Author to consider and remove all objections that might be raised, have occasioned his writing in a manner which Some perhaps may disapprove of, as too minute and prolix: but he hopes it will be a sufficient excuse for the length of the work, that he knew not how to make it shorter, consistently with the end he proposed, viz. perspicuity, and his Reader's conviction. We must have observed from conversation upon this and such like subjects, that what one man reckons frivolous and trifling, to another appears a weighty difficulty. Hence every man has his own particular objection against any thing advanced, which if not answered, all besides signifies nothing to him. The Author therefore, that he might satisfy every body as far as possible, put his papers into the hands of as many as would take the trouble of examining them, with a view that they might point out such objections as would most probably be urged by men of different ways of thinking. If what is advanced on these abstruse subjects, be in the main solid and rational, that, it is hoped, will atone for other faults in the eyes of equitable Judges. To say any more, would be only endeavouring to palliate imperfections with impertinent apologies.

The Reader is intreated to correct the following Errors with his pen,  
which escaped in the hurry of casting off the sheets.

Page 2. line 15. for *to move with*, read *to move it with*. P. 30. l. 35. for *humana*, r. *hu-  
mani*. P. 32. l. 20. for *their*, r. *the*. P. 35. l. 5. f. *xerted*, r. *exerted*. P. 46. l. 30. f. *vür*,  
r. *üs*. P. 53. l. 29. f. *overcome*, r. *can overcome*. P. 78. l. 18. f. *unvegetating*, r. *unvegetating*.  
P. 81. l. 29. f. *his*, r. *this*. P. 138. l. 2. dele [*for any time*] P. 162. l. 15. f. *per mota*, r.  
*permota*. P. 164. l. 4. f. *to assert*, r. *as to assert*. P. 199. l. 18. f. *quem*, r. *quom*. P. 224.  
l. 32. after the words, *superior Powers*, insert [*if this were owned*]. P. 237. l. 36. f. *stain*, r.  
*stains*. P. 238. l. 36. f. lib. 4. r. lib. ii. P. 255. l. 13. f. *σις*, r. *σις*. P. 278. l. ii. f. *they*,  
r. *the spectres*. P. 282. l. 3. f. *upon absurd*, r. *upon these absurd*. P. 295. l. 28. f. *suo*, r. *sui*.  
P. 327. l. 15. f. *images of these objects*, r. *objects of these images*. P. 333. l. 19. f. *the Note (r)*,  
r. *the Note (s)*. P. 338. l. 29. f. *the no power*, r. *no power*. P. 356. l. 20. *as a thing*, r.  
*is a thing*. P. 362. l. 20. f. *determined [then] by*, r. *determined by*. P. 363. l. penult. dele  
[of]. P. 369. l. 36. f. *appearance*, r. *appearances*. P. 375. l. 34. f. *velit*, r. *velut*.

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AN



( 1 )

A N

# E N Q U I R Y

I N T O T H E

Nature of the HUMAN SOUL.

## S E C T. I.

*That a resistance to any change of its present state is essential to matter, and inconsistent with any active power in it.*

**B**Y the soul we understand that which is active and percipient in us, be it what it will (a): its activity appears in moving the body, and in the command it hath over its own thoughts; its perceptivity, in being sensible of the action of matter upon it, and of its own internal actions in thinking. In shewing that matter is not only not endued with these properties, but is incapable of being endued with them, let me be permitted to be particular, and to proceed leisurely step by step; and let the mathematical Reader forgive the insisting upon trite and common appearances. It is better to seem tedious to the few who are quick in apprehending, and versed in this matter, than not satisfactory to slower capacities,

(a) These are the uncontested properties of the soul, whatever be the substance of it; whether material, or immaterial: and this description shall be always kept in view throughout these papers.

B

and

and those who are less conversant in abstract reasoning. Men do not write for those who know the thing already, but for those who know it not; and perhaps a slow person, who hammers out things to satisfy himself, is fittest to communicate them to men of his own size; nor can truth be less, but more certain, for being drawn from the commonest, and least contested *appearances*, or *principles*. These *appearances* we shall first set down, and thereafter gradually shew the necessity of their being constant and certain.

II. Let, to save words, a given body, or mass of matter, be called A; and let any given celerity be called C. That celerity doubled, tripled, &c. or halved, thirdd, &c. will be  $2C$ ,  $3C$ , &c. or  $\frac{1}{2}C$ ,  $\frac{1}{3}C$ , &c. respectively. Also the body doubled, tripled; or halved, thirdd; will be  $2A$ ,  $3A$ ; or  $\frac{1}{2}A$ ,  $\frac{1}{3}A$ , respectively. Now to move the body A with the celerity C, requires a certain force to be impressed upon it; and to move with a celerity as  $2C$ , requires twice that force to be impressed; and to move it with a celerity as  $3C$ , thrice that force is required: and so on. If it can be made appear hereafter that the first force here is necessary, to move the body, to wit, with the celerity as once C, the rest follows easily; for we may conceive the body A moving with the celerity  $2C$ , or  $3C$ , &c. to be the first effect doubled, or tripled; which therefore will require the cause that produced it to be doubled, or tripled respectively. Again, to move the body A with a celerity as  $\frac{1}{2}C$ , one half the first force is only necessary to be impressed; and to move it with a celerity as  $\frac{1}{3}C$ , one third the first force is only required: and so on here again. And to move it with a celerity as  $0C$ , that is to give it no degree of celerity at all, no force is required at all. Therefore it follows that

III. The body A makes a certain resistance before it can be moved with a velocity as C; for otherwise the force would not be necessary, if, to wit, it did not make this certain degree of resistance to render it necessary. And it makes double that resistance, before it can be moved with a velocity as  $2C$ ; and triple that resistance to be moved with a velocity as  $3C$ , &c. still for the same reason. And it makes but one half the first resistance, to be moved with the velocity  $\frac{1}{2}C$ ; and but one third of it, to be moved with the velocity  $\frac{1}{3}C$ , and to be moved with the velocity as  $0C$ , that is to rest still, it makes no resistance at all.

IV. Or,

IV. Or, if instead of different celerities, as in N<sup>o</sup> 2 and 3, we take the quantity of matter different, the *appearance* is equally constant, and certain (from experience, at least) and the consequence of it the same. For the body A requires a certain force to be impressed upon it, to be moved with a celerity as C; or such a force is necessary: and therefore it makes a certain resistance to be moved with this celerity, otherwise the force would not be necessary. And a body as 2 A will require twice that force to be impressed upon it to be moved with the same celerity; or it makes twice that resistance. And a body as 3 A will require thrice the first force, or it makes thrice the first resistance, to be moved with the celerity C: and so on. For the force must be increased proportionally with the quantity of matter, or body to be moved, to make it move with the same common celerity: and therefore the resistance is increased proportionally with the body to be moved, the celerity remaining the same. We may easily conceive that a body as 3 A, 4 A, &c. would make three or four bodies equal to once A, each of which would require once the first force, or make once the first resistance. Also,  $\frac{1}{2}$  A,  $\frac{1}{3}$  A,  $\frac{1}{4}$  A, &c. will make but one half, one third, one fourth, &c. the first resistance, to be moved with the celerity C; because only one half, one third, one fourth, &c. of the first force respectively is necessary to move such part, with that same celerity.

V. The body A requires the quantities of force abovementioned (N<sup>o</sup> 2 and 3.) to be moved with the respective velocities; that is, it makes the proportional resistances there mentioned, before it yield to be moved with these velocities; as also the different bodies or quantities of matter in N<sup>o</sup> 4. require the respective forces to be impressed, or make the respective resistances there mentioned, before they can be moved with the same common celerity; whatever direction the moving force is applied in; whether upward or downward (of which direction in particular more by and by, N<sup>o</sup> 16.) backward or forward, obliquely or horizontally, in all possible variety of directions.

VI. Moreover, all this is likewise certain taken the contrary way, *viz.* from motion to rest; as far at least as experience reaches. For the body A, moving with a certain velocity as C, requires a certain degree of force or resistance in an obstacle, to take off or stop that motion; and



moving with a velocity as 2 C, or 2 A moving with a velocity as 1 C, it requires twice that force or strength in an obstacle to stop the motion; and A moving with a velocity as 3 C, or 3 A moving with the velocity 1 C, thrice the first resistance only will bring it to rest, &c. And A moving with the velocity  $\frac{1}{2}$  C, or  $\frac{1}{2}$  A moving with the whole velocity C, one half the first force will serve to take off the motion; or if A moves with  $\frac{1}{3}$  C, or  $\frac{1}{3}$  A with the whole celerity C, one third the first force stops it: and moving with the velocity 0 C, or resting, no force at all is required. That is, the same body A moving with the celerities 1 C, 2 C, 3 C, &c. or 1 A, 2 A, 3 A, &c. moving with the same celerity C, makes once, twice, thrice, &c. respectively a certain degree of resistance, before it can be brought to rest: and A moving with the celerities  $\frac{1}{2}$  C,  $\frac{1}{3}$  C,  $\frac{1}{4}$  C, &c. or  $\frac{1}{2}$  A,  $\frac{1}{3}$  A,  $\frac{1}{4}$  A, &c. moving with the same celerity C, makes but one half, one third, one fourth, &c. of the first resistance to be brought to rest and have all the motion taken off. And this again through all the possible variety of directions in which the body can be supposed to move.

VII. These are the most general, certain *phenomena* of motion, agreeable to universal experience, the common sense of men, and to reason itself. For, as hath been said, if but *any one* of these cases can be shewn to be absolutely necessary; all the rest become so of course. If it requires a certain degree of force to move a given body with a certain celerity, or to stop that body moving with that celerity (which is too evident to be contested from experience); it is certain it must require twice, thrice, four times, &c. that force; or one half, one third, one fourth, &c. of it, to move the body with twice, thrice, four times, &c. that celerity; or with one half, one third, one fourth of it only, respectively; or to stop it moving with these respective celerities, since effects are proportional to their adequate causes: and therefore that the body, or any multiple, or submultiple of it, makes the respective resistances, mentioned above, to be moved with that celerity, or with any multiple, or part of it; and that it makes equal resistances, when moving with these respective celerities, to be brought to rest again: and this with respect to all possible directions. To make the argument in any one instance, suit in any other, it requires but to take equal multiples, or equal parts, of cause and effect, force impressed and resistance made. *If the immateriality of the soul, the existence of God, and the necessity of a most particular, incessant providence in the world, are demonstrable from such plain and easy principles, the Atheist hath a desperate cause in hand.*

VIII. All

VIII. All that is said then amounts at last to this, *that the body A makes a resistance to any change of the state it is in, whether of rest or motion, in all possible suppositions*: and the same body makes proportionally different degrees of resistance in all possible different suppositions: and it never ceases to make resistance, but when there is no change in the supposition; that is, when the state the body was in is supposed not to be changed. When the body is at rest, it makes resistance to be moved with any celerity as C: and when it moves with any celerity as C, it makes a resistance to move with any other celerity, as 2 C, or  $\frac{1}{2}$  C. Nor doth it make less resistance, if moving, to be brought to rest again. And this is true of all possible directions the body can be supposed to move in. That is, body, or matter, makes a resistance to any change of the state of rest or motion it is in: or exerts a certain force, if acted upon (which is not fully enough expressed by being barely called a tendency) to continue, and defend itself (to use such a metaphorical term) in the same state of motion or rest in which it is: and would, because of this resistance, remain in that state for ever, unless some external cause or agent (that is, by the terms, *something not matter*) impressed a force upon it, to make a change in its present state (*b*). Of this external cause to matter, next. But first some observations are to be made upon what is already said; the consequences of this resistance are to be enquired into; and especially the consequences of a contrary supposition, that matter, namely, was divested of such resistance: whereby it will appear, that matter without it would be fit for none of those uses it is now fit for; that the material world, a plant, or (particularly) an animal body, would be impossible things without it; and in fine, *that matter, as a solid, extended substance, must resist*.

IX. And first, though this resistance in matter is real resistance, or certain and real force exerted, yet it is *no action* in matter, nor is matter active in exerting it: it is rather only *re-action*, resistance in the properest sense; for it is never exerted till matter is first acted upon. Matter is so far from being active because of this resistance, or from having the power of beginning action, that the resistance is *all* exerted, and *always*

(*b*) If once we suppose matter existing, every change of the manner or state of its existence requires an immaterial cause, as shall be shewn in this section; and in the last section of these papers it shall also be shewn, that the simple existence of matter, without considering any change of state in it, requires an immaterial cause, or *creating power*: so that matter considered in any respect discovers to us an immaterial Being.

exerted,

exerted, that no action may be begun in it by any thing else. This resistance makes it best of all appear that matter never acts, or effects a change of state in itself, but resists action, and all possible change of its present state, whether of motion or rest. It is a kind of positive, or stubborn inactivity. If it is to be called a power, it is a power not to act: which lets us see how improperly the word power is applicable to it, at least in that sense it is applied to any thing else. And if this be found to be the only possible power in matter, it lets us see how safely we may pronounce it void of all power, in the propriety of the word. It is called in the new Philosophy, most significantly, a *vis inertiae*, as it were a negative activity; something receding farther from action than bare inactivity. For, not to move itself, when at rest, nor stop itself when in motion; and besides, not to be moved, or stopped by any thing else, but with resistance, is more than simply not to act. We cannot conceive any thing more negative of action than this. It is true this stubborn inactivity cannot be so great but that some power must overcome it, since we still see matter moved by some power; but as much as it may seem a paradox at present, it will appear in a little, I presume, that, strictly speaking, the strongest man could overcome but a mighty inconsiderable part of this inactivity of matter (perhaps not so much as the weight of one single grain) without the concurrence of a greater power than his own (c.) This will surprize those who consider the inactivity of matter, but for the first time, to hear that it is so powerfully inactive a thing.

X. Nor is matter the less inactive, because it acts upon other matter, if that be in its way while it moves. It is as stubbornly inactive while in motion, and resists as much a change of its state then, as while at rest. This very thing comes to pass, because it is more than barely inactive, because of its positive inactivity: for if it were but simply inactive, its acting upon other matter would be an impossibility, as shall be observed immediately. This again should convince us of the inactivity of matter; since if it had not, besides bare inactivity, a force moreover to remain inactive, *the action of matter upon matter would be a thing contradictory*. It hath this force which soever of the states it is in, whether of rest, or motion. And certainly, to effect rest, or stop motion where it is, is as great an effect, and requires as much power in the cause, as to effect motion, or produce it where it is

(c) See N<sup>o</sup> 24. sect. 2.



not. We have familiar instances of this, in offering to stop the motion of a ball, when smartly struck, or in feeling the resistance it makes to be brought to rest again: and if such bodies are discharged with great violence, men are killed, walls battered down, &c. so difficult is it to bring bodies to rest, where the motion is great (d)! Most of the methods of death and ruin are effected by the inactivity of moving matter. *Though matter then acts upon matter by motion; yet it is because of its very inactivity that it doth this.*

XI. And farther, since matter resists motion in any direction, or resists motion in all directions equally, matter in motion will resist any change of direction. This is plain in all the possible cases of the congress of bodies, or where they encounter each other in their motions; for in all these cases they act on each other: and this action proceeds from the resistance they make to being put out of the direction they are moving in. That is, they resist a change of the direction of their motion. Whatever force matter hath to continue in the state of motion it is in, it exerts it all, or a part of it at least, upon any body opposing that direction either directly or obliquely: and indeed if matter did not resist all change of direction, it would not resist at all in being brought from motion to rest; since there is no other way of stopping its motion, but by opposing its direction; and to stop all possible directions of motion is to stop or hinder all motion; motion in no direction being the same as no motion, rest. This is still more manifestly plain in what is called the *composition* and *resolution* of forces; for whatever changes the direction of a body in motion, without adding a new force to it (e), takes off one of the compounding forces. Therefore matter

(d) See Dr. Keil's explication of the first law of nature, *Introd. ad ver. phys. lect. 4.* where, after other things, he says, *Nec magis potest corpus semel motum, motum seu energiam suam ad movendum deponere & per se ad quietem redire, quam potest figuram semel sibi inductam exuere, & aliam recentem absque causâ extrinsecâ acquirere.* And a little after: *Non minor requiritur vis ad corporis alicujus motum sistendum, quàm prius necessaria fuit ad eundem motum corpori imprimendum: unde cum vis inertiae equalibus mutationibus equaliter semper resistit, illa non minus efficax erit, ut corpus in motu semel incepto perseveret, quàm ut corpus quiescens semper in eodem quietis statu permaneat.*

(e) It will be readily allowed, that in the congress of unelastick bodies, the direction is changed, without any new force added: and we shall see what is to be said of the force of restitution in the shock of elastick bodies, a little further on. Moreover, next to the giving matter motion of it self, this is the most fundamental mistake in the *Epicurean* physicks, to give it a power to change its own direction. See *Lucretius, l. 2. ver. 216 to ver. 221.*

is not barely inactive only in changing the direction of its motion, but, more, it resists all change of direction; and is as stubborn in preserving the same direction, as the same degree of motion; since the one cannot be changed without the other. *These are discouraging affections of matter, to those men who would make a supreme Being of it!*

XII. Further, which is worth our attention, the resistance of the same quantity of matter, or body A; if once we fix upon a certain state, either of rest or motion, as a *terminus à quo*; may be indefinitely great, or is as endlessly increasible, as the degree of celerity is, with which it may recede from that *terminus*. For the resistance is always equal to the force necessary to be impressed; and the force must be proportionally increased with the degree of celerity. To be moved with a thousand, or a million of times the celerity C, a thousand or a million of times the first force is necessary to be impressed; and therefore it will make so many times the first resistance. And it is the same contradiction to assign the greatest resistance it can make, as to assign the greatest celerity it can be moved with; or really to assign the greatest number. Thus the resistance of the same body, or quantity of matter, considered in this view, may be increased *in infinitum*. The truth in this paragraph becomes plain also from considering that resistance is the same with re-action; for since action and re-action are equal, the re-action of matter may still be greater and greater, as the action upon it is greater and greater.

XIII. But contrarily, if we consider the same quantity of matter or body A, absolutely, and without any respect to a fixt state, the resistance of it is immutable, and always as much the same, as the solidity or extension of it: so that it is impossible that any force impressed upon it *ab extra*, should take it ultimately off, or lessen it, or increase it; or, in a word, make it other than it always was, before such force was impressed. It is true, the resistance it makes to a change of its present state may be overcome; but then it makes just as much resistance to persevere in that new state, as in the former: and that resistance again may be overcome, and a new state of motion or rest induced upon it; yet it will as obstinately continue in that state, as in any of the other two. And so on endlessly. If any force *ab extra* overcomes the renitency of the body A, to be moved with a velocity as a 1000 times C, it will move on with that velocity; which state of motion is now as much to be considered as its state, as the

the former rest was : and it will just resist as much to be moved with a velocity as 2000 times C, or to have the velocity C another thousand times increased, as it did at first ; or to be brought back again, from moving with the velocity 1000 C, to rest, as it did to be brought from rest to move with that velocity. *In a word, as long as a change is possible, which is always and endlessly, so long must it resist ; and it must resist equal changes equally :* which was exactly the resistance it was endued with, before any change was effected in it at all, and before any force was impressed upon it at all. So that this resistance cannot be impaired, augmented, or any way altered, by any new force impressed *ab extra*. Which is already a strong symptom that resistance to a change of its state is of the nature of matter, as inseparable from it as solidity or extension ; since as long as the solid extension, that is the quantity of matter, in the body A, remains the same, this immutability of its resistance must be supposed, if it is at all resisting matter.

XIV. But yet farther, as this resistance in matter to change its state cannot be ultimately taken off, lessened, or any way altered, by any force impressed *ab extra* upon it ; so neither could it subsist in matter jointly with any quality, power, conatus, or tendency to change its state. For first, supposing it possible that two contrary tendencies could be planted in matter ; one, whereby it resisted a change of its state, in any possible direction, and another, whereby it tended to change it ; this would be to no effect, nor to any other purpose than *doing* and *undoing*. These two contrary conatus's would destroy each other if equal ; or if unequal, the stronger would destroy the weaker, and the excess of it only would remain. So that the resistance to a change would either prevail, and then it would be the same thing as if no such contrary tendency had been planted in matter ; or the conatus to a change of the present state would prevail, and then the remaining in any given state possible would itself be impossible ; which is a thought full of contradiction (f). Thus two contrary tendencies (supposing they could be both

(f) This is very inconceivable, and really a self-destructive supposition. For to be indefinitely changing its state supposes really no change of state at all in the body ; because no precedent state could then be of any possible finite duration : otherwise, if it were permitted to become of any finite length, and deserve the name of a precedent state, there would not be an indefinite change effected ; or the body would have a tendency to preserve its state for some time, contrary to the hypothesis. To suppose an infinitely quick change of state, from rest to motion, and from  
C  
motion



both planted in the same individual subject, as matter) would have the same effect upon each other, as two contrary quantities, a positive and a negative; or as two forces impressed upon the same body in opposite directions; to wit, to cancel each other mutually. For a resistance to a change of state would resist a conatus toward it, in any possible direction, by N<sup>o</sup> 5 and 11.

XV. This would be the result, if it were possible, that two contrary conatus's could be planted in matter at once: but that is really impossible and contradictory. For that a particle, or atom of matter (and the reason is the same in any assigned quantity) should have a tendency to move in any one given direction, and at the same time that it should have another tendency not to move in that, or any other direction, is *to have a tendency, and not to have it*, at once. Two such contrary and inconsistent tendencies, planted at once in one and the same individual subject, is a notion destructive of itself; and therefore not to be effected by infinite power: for to effect impossibilities is not the object of any power. The argument is the same, whether the first state of the body is supposed rest or motion: for if it is supposed first moving, it cannot have a tendency to move in that direction only, and with that particular degree of velocity only; and yet have a tendency to move in another direction, and with another degree of velocity. The one excludes the other. In a word, a body cannot have a tendency *to change* its present state, and at the same time a tendency *not to change* it, more than two contradictory propositions can both be true: for *these two* are really such. This is a remarkable property of the resistance of matter, *That it is inconsistent with any power or force in it*; and should never be forgot by us. It infers many notable consequences, which it seems we are not sufficiently aware of at all times: and, among others, an utter impossibility that matter can ever become,

motion to rest, is to suppose absolute rest only. For when motion was but nascent, rest would be again induced, because the incessant tendency to change incessantly takes effect: and before rest were settled, motion, for the same reason, ought to begin. So that, as was said, this notion destroys itself. How remarkable is this co-incidence, when the only supposition that could serve a sceptick's turn, of necessity defeats itself! For if this tendency to change its state is the stronger of the two, it must overcome the other at all times, and infer the contradiction shewn, in spite of all evasions: and the conclusion is, that *such a superior tendency cannot be planted in matter*.

by

and inconsistent with any active power in it.

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by any power, a living, self-moving substance; seeing, as will appear, matter must resist all change of its present state, as it is a solid substance. If this had been attended to, an infinity of doubting and disputing might have been saved to mankind.

XVI. This will change our physicks a little, and establish a new Theory of matter. For it will follow that all gravity, attraction, elasticity, repulsion, or whatever other tendencies to motion are observed in matter, commonly called natural powers of matter, are not powers implanted in matter, or possible to be made inherent in it; but (therefore) impulse, or force impressed upon it *ab extra*. We are apt to think that it is a certain natural quality, or power, implanted in the matter of a stone, *v. g.* and inherent in it; that makes it tend to the earth (*g*): but, by what is said in the last paragraph, it appears that it resists this motion, as much as it would a motion in any other direction, with the same velocity: or that matter is as much *impelled* in this case, as in any other, by some cause or virtue, *ab extra, i. e.* by something not matter. The effect of gravity is not to destroy the resistance of matter, or to make it unresisting matter, but to overcome its resistance to be moved in certain circumstances; where it still

(*g*) Even so great a man as Borelli seems to have been of this opinion. In the chapter *de causis & principiis motus* (the 2d of his book *de vi percussione*) he says, *Tandem summa contentione controvertitur, an aliqua corpora moveri possunt à seipsis, vel potius quicquid movetur, à distincto separatòque motore propelli debeat: & profecto, ut à postremo exordiamur, evidentissimum est aliqua corpora à distincto, & externo motore impelli, sic ea omnia quæ vehuntur, percutiuntur, aut projiciuntur, manifestissimè ab externo impulsore promoventur; sed an reliqua omnia, quæ in mundo moventur, pariter ab extrinseco principio, & causâ propellantur, hoc profecto impossibile & incredibile videtur, quandoquidem corpora gravia, & animalia per se videntur moveri, scilicet à causâ & principio intrinseco, &c.* What difference there is to be assigned between the moving principle in an animal, and in a heavy body descending, we shall see below; only I think it was not right to conclude them under one head. The expression [*substantia animastica*,] which farther on he says is both *agent* and *patient*, without a clear idea of it in the mind of the person that writes, and an explication of that idea, to communicate it to the person that reads, is of no use in philosophy; or of bad use: but of such things Mr. Locke hath said enough. No man can conceive that the same thing should be both *movens* and *motum*. There is a plain contradiction in this assertion, *eademque substantia corporis gravis, migrat & descendit, à seipso impulsâ*. A moved resists motion; a mover overcomes that resistance: these opposites can never consist in the same individual thing. If the distinction of agent and patient is necessary in *projection*, and *percussion*, and the effects of art, it is also necessary in the works of nature. Two things, necessarily two in the one case, cannot become one in the other.

resists as much every new change of state, as if its resistance to the former had not been overcome. And this is the case in all force impressed *ab extra*, by N° 13. When the resistance of the body A, to be moved with a celerity as a 1000 times C, is overcome, though it resists no more to be carried on with that celerity, which is now to be considered as its permanent state; yet it resists as much to be put out of this state, as it did formerly to be brought to it. And this is just the case in the descent of heavy bodies: any velocity from the beginning of the fall would be a permanent state of the body, if new impulses *ab extra* did not add still farther degrees of velocity. This truth is also plain from this consideration, that if a body, moving more swiftly than another body moves by the force of gravity, attraction, elasticity, &c. overtakes it; the body so overtaken will make resistance to the impulse of the overtaking body, even though the direction of their motions conspire. For instance, if we call the celerity which a piece of wood hath acquired in falling down through a certain space, K; and the celerity, with which a bullet leaves the muzzle of the gun, C; and then suppose the bullet moving with the sum of these two celerities ( $C + K$ ) to overtake the piece of wood in the end of that space; it is demonstrable that the bullet would pierce the wood, even though their motions were conspiring. For, the relative velocity of the ball and piece of wood being the same, both when it is discharged against the piece of wood at rest, and when it overtakes it in its descent, the greatness of the stroke, and the effect of it will be the same; namely that the ball will pierce the wood. One may be also more familiarly certain of this, if he lets a ball drop out of his hand, and strikes it before it reach the ground; for he will feel it resist the stroke very sensibly. This lets us see that matter resists even the force of gravity, or any other acting in the same direction, as was asserted N° 5. and consequently, by what was said in N° 15. that the force of gravity (*the same is to be understood of elasticity, fuga, attraction,*) is a force impressed *ab extra*, and no conatus, or tendency belonging to matter, or inherent in it. But all this will still appear more evidently when we come to consider what *moment* (impetus, or force in a moving body) is: for all *moment* proceeds from the resistance in matter to change its state; and whatever matter hath force, or *moment*, in its motion, must be resisting matter. And consequently matter resists to be moved by the powers of *elasticity, gravity, repulsion, &c.* for in all these the *moment* is plain by the effect produced. It is the effect produced by



by the *moment*, or force, that shews the powers of elasticity, gravity, &c. these impulses should be otherwise undiscoverable by us: and it is the *moment* also that inevitably shews the matter to be resisting matter in these very instances. So that there is no hazard of our being deceived in concluding univerally that all the tendencies to motion observable, or possible to be observed, about matter, are not the powers of matter, or properties residing in it, or possible to be planted in it by any being: but *strictly impulses upon it ab extra*.

XVII. However, let us suppose what some philosophers think not impossible, and see how far it will influence this conclusion; *viz.* that the power of gravity in particular may be the effect of some fluid, or very subtil matter, impelling those bodies we call heavy (*b*): and let the same be supposed possible

(*b*) Dr. Pemberton, in his view of Sir *Is. Newton's* philosophy, says, that great man himself conjectured this might be so. His words are; He [*Sir Is. Newton*] *thinks it not impossible that the power of gravity itself should be owing to it* [a very subtil spirit, to wit, of a great elastick force, diffused through the universe.] Conclusion. N<sup>o</sup> 2. And in N<sup>o</sup> 3. he says, *It acquiesces in the explanation of any appearance, by asserting it to be a general power of attraction, is not to improve our knowledge in philosophy, but rather to put a stop to our farther search.* But with all due submission, our search is carried as far as it can go, if it stops only at the first cause, having been rightly carried thither: and there it must stop, if it is rightly made. The elasticity of this spirit itself ought to have been ascribed to the agency of the first Being. Our searches do not suppose an endless indagation of *cause above cause*; but only to attain, if possible, to a First, the fountain of causation. I also humbly beg leave to dissent from Mr. *Derham's* sentiments about gravity. He says, (b. 1. ch. 5. note 1.) *This attractive or gravitating power, I take to be congenial to matter, and imprinted on all the matter of the universe, by the Creator's fiat at the creation.* Not only the reasons above, N<sup>o</sup> 14 and 15, but the constant appearances in the descent of bodies, shew that this is an incessant impulse upon matter, not the permanent effect of a transient, simultaneous impression. For it is obvious that an equally accelerated motion could never be effected by one single and instantaneous impression; but by a successive, equable repetition of impulse. He continues, *What the cause of it is, the Newtonian philosophy doth not pretend to determine, for want of phenomena, upon which foundation it is, that that philosophy is grounded, and not upon chimerical and uncertain hypotheses.* [Why suppose it imprinted upon all matter by the Creator's fiat at the creation, and yet seek another cause for it?] But whatever the cause is, (the following words are a citation from Sir *Is. Newton's* principles) *that cause penetrates even to the centers of the sun and planets, without any diminution of its virtue; and it acteth not according to the superficies of bodies, (as mechanical causes do) but in proportion to the quantity of their solid matter; and lastly it acteth all round it at immense distances, decreasing in a duplicate proportion to these distances.* Here Sir *Is. Newton* himself seems to refuse a mechanical cause of gravity; and for that very reason, for which Dr. *s'Gravesande* rejects it, as shall be observed immediately.

also in elasticity, repulsion, and all the other tendencies to motion observable in matter. And first, it is plain such an hypothesis makes these powers not inherent, or lodged in the matter of the bodies themselves, as properties of it, or as accidents are said to be inherent in their subject; but impulses *ab extra* upon the bodies so heavy, elastic, repelling; as here is concluded. This doth not suppose two inconsistent tendencies in matter; one *not to change* its present state, and another *to change* that same state: but leaves it as much resisting matter to all change of state, as here it is contended to be; and supposes this resistance only overcome by the impulse of other matter. And, secondly, as to this other matter of such subtle fluid, it is evident, it must be as much resisting matter to all change of its state, as the matter of these bodies themselves, which we know, is shewn to be. The *moment* or *force*, which it hath in its motion, and with which it impels these bodies, manifests this. Let it be observed; *the powers of gravity, elasticity, repulsion, attraction, can no more be lodged in the matter of this fluid than in the matter of the real bodies we have been speaking of*, and that for the same reason, assigned above: for this is as contradictory in respect of one sort of matter as another, in respect of a very small particle as of a much greater one, being a palpable contradiction in respect of all matter equally. The matter of this fluid then being, in all respects, matter that resists a change of its state, we must still as much seek a cause of its motion *ab extra* to it, that is, in effect, in *something not matter*, in some immaterial cause, or being, (unless we would be openly absurd, and suppose one thing, itself caused or moved, the cause of another thing moved, *in infinitum*, which includes in it all the contradiction of the Epicurean scheme); I say, we must as much seek a cause *ab extra* to it, of its motion, as of the motion of those bodies we are acquainted with, and have reasoned from: so that we are removed but one step from the *immaterial cause* we were looking for; and the conclusion above is secured, allowing the thing supposed here could be proved real. But then there are strong reasons that shew this hypothesis to be without foundation. Dr. *s<sup>r</sup> Gravesande* gives several, which, I think, intirely overthrow it (i). One

is,

(i) I shall transcribe the whole passage. It is in *L. 4. c. 4.* at N<sup>o</sup> 1237. *Ultimus, si gravitas pendeat à lege motus notâ, ad impactum corporis extranei referri debere; Et quia gravitas est continua, impactum etiam continuum requiri. Si talis materia continuè in corpora impingens detur, necessariò est fluida. Et quidem subtilissima, quæ penetrat corpora quæcunque; corpora enim in aliis utraque inclusa gravia sunt. Videat nunc mathematicus, an fluidum adeò subtile, ut corporum omnium poros liberrime permeet, Et adeò rarum, ut motui corporum sensibilibiter non obstet, (in loco enim*

aër

is, That the action of a fluid upon a body could never make it gravitate towards another, more or less, in proportion as the quantity of matter in that other were itself more or less; which is allowed even by those, who suppose the power of gravity may be the effect of the action of some fluid. If a cause produces an effect, it is highly reasonable that such effect should follow the proportion of its cause: but quite unreasonable that it should follow the proportion of another thing, no way concerned in producing such effect. There is another argument which this Author adduces, and every body owns, that shews gravity is not to be ascribed to the mechanical action of matter upon matter; namely, that gravity acts internally, and according to the solidity of the matter itself; whereas the action of other matter upon it ought to be according to the superficies of the parts, since there is not a penetration of dimensions, unless we would deny the solid extension of all matter. Then indeed the more surface any body had, that is, the more porous the contexture of it were, the mechanic action of any fluid matter upon it, and therefore the gravity of it, ought to be the greater: which is directly contrary to experience. These reasons, abstracting from those above N<sup>o</sup> 14, 15 and 16, shew that gravity is not the action of matter upon matter, but the virtue and power of an immaterial cause, or being, constantly impressed upon it (k.)

## XVIII.

*airē vacuo penduli motus diutissimè continuatur*) corpora ingentia tantū cum vi ad se mutuo possit propellere? [This is his first argument, which seems very conclusive.] *Explicit quomodo hæc actio crescat in ratione massæ corporis versus quod aliud fertur. Tandem, quod omnium mihi difficillimum videtur, dicat, quomodo omnia corpora, in quocunque situ, eadem manente distantia, & corpore, versus quod gravitas datur, eadem velocitate ferantur; id est, quomodo liquidum, quod nisi in superficies ipsorum corporum, sive illarum internarum particularum, ad quas accessus ex interpositis particulis non impeditur, actionem suam exerere potest, communicet corporibus motus quantitatem, quæ in omnibus corporibus exactissimè sequatur proportionem quantitatis materiæ in his, quod in gravitate ubique obtinere, hoc capite probavimus, & quod directo experimento demonstravimus, respectu gravitatis in telluris viciniis.* And thence he concludes (N<sup>o</sup> 1238) *Non tamen negamus, ab ullo impactu pendere gravitatem; sed illam non sequi ex ullo impactu, juxta leges nobis notas, clarè patere contendimus, gravitatisque causam nos omnino latere fatemur.* Moreover, with respect to this subject of gravity, it is to be observed, that it was the capital mistake in the Epicureans to make it, and therefore motion, essential to matter. See *Lucret. l. 1. ver. 986. to ver. 996. and from ver. 1074. to ver. 1079: and again l. 2. ver. 132. to 138. and ver. 202.* This hath made him suppose a monstrous universe, where matter is still falling down, by its innate gravity, through the infinite abyss of space; as if that had the relative denominations of above and below. Nor is *Des Cartes* much happier in his mechanical solution of gravity, who makes a subtle fluid, in its circumgyration, recede from the earth, and so beat down other bodies to it; though this should rather carry them from it.

(k) After all that hath been said, there is a difficulty still urged with respect to gravity, which



XVIII. To return then; as from N<sup>o</sup> 14 and 15. it appears, that this resistance to a change of its present state of rest or motion, is the only tendency

which with much submission I humbly beg leave to consider. It is said, Sir *Is. Newton*, at the end of the last edition of his *Optics*, gives many reasons, which induced him to believe there was a subtle elastic fluid, which might be the cause of gravity, and the cause of many other phenomena, particularly those of heat and light, at the same time. By reducing more phenomena to one principle, cause, or instrument, the beauty of nature is set in a greater lustre. Though this principle may be immediately deduced from the first cause, s'*Gravesande's* arguments do not hold against this fluid, as Sir *Isaac* describes it. As it pierces all bodies and touches their elements, or least particles, it may act on them with a force proportional to their number, or to the matter of the body on which it acts. It is rarer in great bodies than in small ones, and therefore may act with a force proportional to the body towards which it impels. To begin with the last of these reasons: It doth not appear sufficient, in order to account how this fluid may act with a force proportional to the body to which another is impelled, to assert that it is rarer in great bodies than in small ones: it must be farther asserted, that this fluid is rarer or denser in the same body, whether small or great, according as the body to which that is impelled, is itself small or great. In the earth, as gravitating to the moon, it must be very rare; and in the earth again, as gravitating to the sun, it must be very dense: How can the same fluid be both dense and rare in the same body at once? Besides, it must be asserted, that this fluid is denser in dense bodies, whatever their magnitude be, than in rare ones; for these gravitate most: which seems directly contrary to reason; since the denser any body is, the less freely any fluid, ever so subtle, should pervade it, to give every particle an impulse; and contrarily, the rarer the more freely. Moreover, if there be any solidity in bodies at all, which it would be strange to deny, a fluid cannot pervade, I think, to the innermost particles of these solid parts, to give these their impulse, without supposing a penetration of dimensions: acting according to their number, is acting according to the very solidity of bodies.

In this particular, let me reason as things appear to myself; because possibly they may appear the same way to others. If every particle through the whole solidity of a heavy body, received its impulse from the particles of this fluid, it should seem that the fluid itself must be as dense as the very densest heavy body, gold for instance; or that there must be as many impinging particles in the one, as there are gravitating particles in the other, which receive their gravitation by being impinged upon: which does not suit with the phenomena of motion in general, and with the motion of pendulums in particular, and gives Dr. s'*Gravesande's* arguments before cited great strength; but it seems then that throwing gold, or any heavy body upward, against the impulse of this fluid, would be like throwing gold through gold. And since this medium must be as dense when it impels cork, as when it impels gold, to throw a piece of cork upward, must be as if we endeavoured to make cork penetrate a medium as dense as gold. The expedient found out to make this medium appear more probably the cause of gravity, hath been to imagine all bodies exceedingly porous and rare: and this notion is carried so extravagantly high, as to suppose that all the matter in the known universe might not take up one cubical inch of space. (See Dr. *Pemberton's* review of Sir *Is. Newton's* philosophy, b. 3. ch. 2. at the end: and what is said concerning a

dency planted in matter; or, to speak more truly, proper to it as matter; and that it is inconsistent with any other conatus, or tendency to change it:

progression of pores by Sir Isaac Newton himself, at the end of his Optics.) But might not one say, that this is contriving one hypothesis to support another hypothesis, and then contending (in the present Objection, I mean) for the reality of both? Besides, it no way takes off the difficulty I just now urged, that the fluid must be as dense as the very densest body to give every particle its impulse of gravity. But then what is to be said, if we suppose a body perfectly solid, or without any pores? Gravity is allowed on all hands to be as the quantity of solid matter. Now if there were a cubick inch of such a perfectly solid body, and a cubick inch of a body that had a hundred times more pores than solid matter, the first should gravitate an hundred times more than the last, as having an hundred times more solid matter; and yet from the impulse of this medium, it should gravitate an hundred times less at least, as having an hundred times less surface: for the medium could only act on a surface of an inch square.

There is no way of avoiding this consequence, but by saying *arbitrarily* that there is an hundred times more surface in the square inch of the perfectly solid body; or that the medium impinges on an hundred times more solid particles in this square inch of surface, than in all the solid inch of the rarer body: but even that is contradictory; for by supposition, there is but an hundred times as much matter in the whole solid inch of the perfectly solid body; and surely it is not all lodged in one of the surfaces, or in any of them.

There is another hypothesis that must be maintained by those who assert this elastick fluid as the cause of gravity, which is itself very improbable, *viz.* that the perfectly solid parts of all bodies whatsoever, are of equal bigness: for in similar particles, the solidity is in a triplicate ratio of the homologous sides, and the surface only in a duplicate ratio of these. So that if similar solid particles are of a different bigness, the matter being in a triplicate, and the action of a fluid only in a duplicate ratio of the sides, the same quantity of matter will not have the same gravity. If two particles have their sides as 2 and 3, their gravities will be as 4 and 9, and yet their quantities of matter are as 8 and 27.

Dr. Clarke arguing against Mr. Collins, says, "This proportion it is that evidently shews gravitation not to be caused by material impulse. And unless you [Mr. Collins] could have found out an hypothesis, whereby either the quantity of solid matter in bodies, and the quantity of their superficies, could be made one and the same; or upon mechanical principles, bodies could, by superficial contact, receive impulses proportional to the quantity of solid matter contained in them; you would much more advantageously to your self, have acknowledged the first palpable error, than by a heap of things besides the purpose, have endeavoured to amuse only such readers as want skill in mathematics." This is in his fourth defence of an argument, to prove the immateriality of the soul, &c. p. 244. And in his third defence, p. 183. he says: "It has been demonstrated even mathematically, that gravitation cannot arise from the configuration and texture of the parts of matter, and from the *circumambient impelling bodies*; because, if it did, it would not be proportionable to the quantity of matter, or the solid content of all bodies, without any regard to their superficial proportion, as we find by experience it is; seeing all bodies, of all textures, and all configurations of parts, and all varieties of superficial proportion, (a bullet, or a feather, or a piece of leaf-gold, or a sheet of paper,) descend *in vacuo* with equal

it : so if this resistance were not in matter, it would follow that then the same force, and that an infinitely little one, would move all quantities, or masses

equal swiftness. And if material impulse be ~~not~~ the cause of gravity ; then some Being that is not matter (for laws, or powers, are nothing but empty words) *must of necessity* be allowed to be the cause of it." And the Doctor at this place refers (in the margin) to Sir *I. Newton's Principia*, and the very queries at the end of his *Optics*, as confirming this reasoning. And it must seem strange if these queries both confirm and oppose it.

Again, if we suppose a cubical inch of gold receiving its impulse of gravity from the particles of this fluid, how can we conceive those particles that penetrate through the whole depth of the gold, in order to give that side of it nearest the earth its impulse of gravity, to pervade all the rest of it without striking against solid parts, and then at length to find solid parts at the undermost surface to impinge upon ? All the gold is of one density sure. Or suppose it were not ; yet invert the gold, and turn the densest side uppermost, and the difficulty becomes greater. These impinging particles must pass the densest side, and find only solid parts to strike against in the rarer.

As to what is said, *that by reducing more phenomena to one principle, cause, or instrument, the beauty of nature is set in a greater lustre* ; it is certainly true : but I do not think any mechanic principle or second cause, can (by the terms, or as being a second cause) be so simple, or set nature in so great a lustre, or shew the universality of Providence, or the immediate presence of God so much, as to shew he himself is immediately concerned in all the operations of nature. Let what I have said above, in this seventeenth paragraph, be remembered, *viz.* that we are but one step removed from the immediate causation of the first cause, even by allowing the intervention of this elastic fluid, unless we would be openly absurd, and make a series of effects infinite. The first cause then must give the impulse to every one of these elastic particles immediately : and therefore this superinduced mechanical cause of gravity would be a multiplying of principles needlessly. To suppose God moving one thing, and that thing another, &c. for a long train, saves the Deity no pains, (if I may speak so) and is more unphilosophical ; only it agrees better with our weakness, and therefore with our prejudices, who are forced to help ourselves by the natural powers of matter (as we call them.) *But what needs God help himself by his own powers ? And they are originally his powers, unless we would incur direct atheism.* We want power, and therefore display all our art to help our selves the best way we can : hence we think it is art in an infinitely powerful being to do as we do, though there is no parity. The wisdom of God discovers itself a thousand other ways : but since it is a contradiction that motive power should be lodged in matter, philosophy will not allow us to seek a compend here.

Sir *Isaac Newton's* own account of this fluid is as follows. In the advertisement to the second edition of his *Optics*, he tells us, *that at the end of the third book in that edition, he had added some questions ; and to shew that he did not take gravity for an essential property of bodies, he had added one question concerning its cause, chusing to propose it by way of a question, because he was not yet satisfied about it for want of experiments.* The question itself is the 21<sup>st</sup> in number, and in the following words. " Is not this medium much rather within the dense bodies of the sun, stars, planets

" and comets, than in the empty celestial spaces between them ? And in passing from them to

" great distances, doth it not grow denser and denser perpetually, and thereby cause the gravity

" of



masses of matter, how unequal soever, with equal facility; and that it would be equally easy to give the same degree of celerity to any body:

To

or

of these great bodies towards one another, and of their parts towards the bodies: every body endeavouring to go from the denser parts of the medium towards the rarer? For if this medium be rarer within the sun's body than at its surface, and rarer there than at the hundredth part of an inch from its body, and rarer there than at the fiftieth part of an inch from its body, and rarer there than at the orb of Saturn; I see no reason why the increase of density should stop any where, and not rather be continued through all distances from the sun to Saturn, and beyond. And though this increase of density may at great distances be exceeding slow, yet if the elastic force of this medium is exceeding great, it may suffice to impel bodies with all that power which we call gravity. And that the elastic force of this medium is exceeding great, may be gathered from the swiftness of its vibrations. Sounds move about 1140 *English* feet in a second minute of time, and in seven or eight minutes of time they move about one hundred *English* miles. Light moves from the sun to us in about seven or eight minutes of time, which distance is about 70000000 *English* miles, &c."

Here, with that great deference which becomes me, let me be forgiven if I offer the reasons why this account of this elastic medium seems to me not to answer the appearances of gravity. And first, if it is much denser without the bodies of the planets than within them, or much rarer within these dense bodies than without them, it will be much rarer within and on the surface of the earth (a planet) than at a distance, and therefore much rarer within dense bodies which lie within or on the surface of it, (minerals and metals for instance) than without them: whence it would appear they should gravitate more according to their surfaces than their internal solidity, and the parts of the earth (solid rocks and the heavier strata) should not gravitate to the earth itself according to their quantity of matter. So that this account doth not seem to answer for the different specific gravities of different bodies lying in the same depth, since in these, however different, it seems to be supposed equally rare, the density of it not being accommodated to the different densities of bodies, but to different distances. Besides those great bodies themselves, the sun, planets, comets, ought to be impelled to each other according to their quantity of matter, which cannot happen, if this elastic medium acts more forcibly on their surfaces than internally, as it must do, I think, on this supposition. Farther, if this medium grows always denser the greater the distance is from the surface of a planet; a body let fall at the distance of 60 semidiameters of the earth from its surface, or at the distance of the moon, would move faster in the beginning of its descent, than when let fall at one semidiameter's distance only; unless we would say that the denser an elastic medium is, it acts with the less force, the contrary of which is true. But a body let fall here moves about 16 feet in a second, and at 60 diameters distance it would move but about sixteen feet in 60 seconds: for the spaces run over increase as the squares of the times, and decrease as the squares of the distances, so that in this case they would be the same. (See Dr. P.'s Rev. of Sir *I. Newton's* Philosophy, b. 2. ch. 3. N<sup>o</sup> 4. and again ch. 5. N<sup>o</sup> 3.)

Moreover, an elastic medium that consisted of particles which repel each other, like our air; for Sir *I. Newton* says a little below, "And so if any one should suppose that *Æther*, like our air, may contain particles which endeavour to recede from one another. (for I do not know what this *Æther* is) and that its particles are exceedingly smaller than those of air, or even than

or rather that no force at all would perform this. For where no resistance is, no force needs be bestowed to overcome it. A smaller or a greater mass of

"those of light: the exceeding smallness of its particles may contribute to the greatness of the force by which those particles may recede from one another, and thereby make that medium exceedingly more rare and elastic than air;" I say, an elastic medium that consisted of particles which repel each other, like our air, would resemble our air also in another particular, which, I humbly think, would overturn this whole hypothesis: for the particles of such a medium, endued with this repulsive force, should, like those of air, repel each other the more strongly the nearer they were to each other, that is, the denser the medium were in any part: and there being less resistance towards the side where it was rarer, they would recede to that side, till their forces were *in equilibrio*, and the whole mass of this medium became of an equal density. In which case, their elasticities balancing each other, the particles would rest, and produce no effect upon any dense body either without or within its surface. This is the very case of our air, whose elastic, repelling particles could never, I think, be supposed the cause of bodies being impelled to each other in it.

Farther, let me anticipate, in some measure, here, an argument I shall insist upon below. The action of this fluid is supposed the cause why the parts of these great bodies, the sun, planets, comets, gravitate to the bodies themselves (see the Question cited) *that is*, gravitate towards one another; or it is supposed to act within the solidity of these bodies. Now there is such an affinity between the mutual attraction of the internal parts of great bodies (as the earth) and the internal parts of small bodies (as a stone, gold, &c.) while they lie in the strata: that is, between the attraction of gravitation and the attraction of cohesion, that if it is absurd to offer at a mechanical solution of the one, it seems no less absurd to offer to solve the other mechanically. Why might we not suppose that the action of this fluid impels the internal parts of marble to one another, as it doth the internal parts of the earth? Is there a different cause of cohesion, when the marble lies in the stratum in the bowels of the earth, and when it is brought up to the surface? All the arguments that ever were offered to account for the attraction of cohesion mechanically, confute themselves. In the instance just now assigned of marble, the two attractions coincide. The distinction between them, in this case, seems but nominal. If an immaterial impulse is necessary in the one, is it not in the other? And, finally, if so, is not this hypothesis an inartificial multiplying of principles?

Again, if light is darted in all directions indifferently from any luminous body (the sun particularly) and reflected to any side from specula and all opaque bodies; and if sound is propagated *quaquaversum*, by the vibrations of this medium; it seems hard to conceive that the vibrations of the same medium that push light from the sun, should push the planets, &c. to the sun? Or do the contrary vibrations encounter one another? They are strong one way, in impelling the earth to the sun's surface; and yet they seem no less strong the contrary way in impelling heavy bodies to the earth's surface which is nearest the sun. It is to be observed with respect to these contrary vibrations, that they must as much shatter, confound and hinder one another, when the medium is supposed the same, as if they were the contrary vibrations of two different mediums. Thus Sir *J. Newton* himself reasons, speaking of a supposition of Mr. *Huygen's*, (Quest. 28.) "And it is

of matter could make no difference of resistance, in that supposition, where matter universally was endued with no power to resist: nor could the

“ as difficult to explain by these hypotheses, how rays can be alternately in fits of easy reflexion  
 “ and easy transmission; unless perhaps one might suppose that there are in all space two *Æthereal*  
 “ vibrating mediums, and that the vibrations of the one of them constitute light, and the vibra-  
 “ tions of the other are swifter, and as oft as they overtake the vibrations of the first, they put  
 “ them into those fits. But how two *Æthers* can be diffused through all space, one of which acts  
 “ upon the other, and by consequence is re-acted upon, without retarding, shattering, dispersing  
 “ and confounding one another’s motions, is inconceivable.” If then it is inconceivable  
 that the action of this medium should not be retarded, shattered, &c. by the re-action or resistance  
 of another medium, though both so rare and unresisting, as not to impede the motions of the ce-  
 lestial bodies; is it less inconceivable that its action should not be retarded, shattered, &c. before it  
 reaches the heart of marble, brass, adamant?

As to what Sir *Is. Newton* says in the last part cited from *Quest. 21*. That the littleness of the  
 repelling particles may contribute to the greatness of their repulsive force. This is a direct impos-  
 sibility, unless he ascribes this repulsive force to an immediate immaterial power exerted, and not  
 to the particles themselves; which argument I shall insist upon, when I come to speak of the re-  
 pulsive force of the particles of air, and of the cohesion of the least parts of matter; for other-  
 wise, it is as if we should say, The less the adequate cause is (a repelling particle, to wit) the  
 greater the effect may be (namely, the force exerted by it). The less a material particle is, the  
 less power it must have, excluding all other agency; and that can never produce the greater effect;  
 nay (I repeat it) it must be an immaterial agent; for the mechanic action of other matter could  
 never be greater on a particle the smaller it were. And what he says here, he repeats elsewhere  
 on another subject, (*Opticks*, p. 370. edit. 3d.) “ Now the smallest particles of matter (says he)  
 “ may cohere by the strongest attractions, and compose bigger particles of weaker virtue; and  
 “ many of these may cohere and compose bigger particles whose virtue is still weaker, &c.”  
 Now it is impossible the very smallest particles should attract each other with such prodigious force  
 as not to be overcome by any second cause (for this will appear true) unless an external power im-  
 pelled them to each other incessantly. Let there be two particles A and B, and it is altogether ad-  
 mirable that I can overcome the joint resistance of them both, any way I please, and yet cannot  
 overcome the separate resistance of any one of them, so as to make it leave the other.

The words of this great man are still farther urged by others, in defence of a mechanical gra-  
 vitation; viz. “ That the magnet acts upon iron through all dense bodies not magnetic nor red-  
 “ hot, without any diminution of its virtue; as for instance, through gold, silver, lead, glass, wa-  
 “ ter. The gravitating power of the sun is transmitted through the vast bodies of the planets,  
 “ without any diminution, so as to act upon all their parts to their very centers, with the same  
 “ force, and according to the same laws, as if the part upon which it acts were not surrounded  
 “ with the body of the planets.” [*Optics*, p. 242.] And again: “ If any one would ask how a  
 “ medium can be so rare; let him tell me how the air, in the upper parts of the atmosphere,  
 “ can be above 1000000000 times rarer than gold. Let him also tell me, how an electric body  
 “ can by friction emit an exhalation so rare and subtle, and yet so potent, as by its emissica  
 “ to-



the difference of velocities occasion any difference in a thing, which is equally denied concerning all velocities. The whole terraqueous globe would

"to cause no sensible diminution of the weight of the electric body, and to be expanded through a sphere, whose diameter is above two feet, and yet to be able to agitate and carry up leaf-copper, or leaf-gold, at the distance of above a foot from the electric body. And how the effluvia of a magnet can be so rare and subtle, as to pass through a plate of glass without any resistance or diminution of their force, and yet so potent as to turn a magnetic needle beyond the glass." [Opt. p. 327.]

As to the first of these instances; gold is a denser body than iron; and that the particles of matter from a magnet should pass freely, and without impinging on the denser body, and then impinge on, and impell the parts of the rarer body, if there were no other thing than material impulse in the case, is itself impossible and contradictory. These particles are but dead matter, and can only receive an impulse in one direction; and yet they are supposed here to pass without hindrance or let, through a denser body, and seize upon a rarer body beyond that: If this is so, I am sure it is not an effect merely mechanical, or performed without the intervention of a superior cause. What should direct them in their passage through the denser of the two bodies, freely, or without striking against the parts of it, (for it is said, *there is no diminution of their power*) that they may impell, and act upon the parts of the less dense? For every one sees that, according to merely mechanical action, they should impinge most on the densest body; especially since it is nearest, and since their power must decrease as the squares of the distances from the magnet increase. To alledge attraction here, is to alledge immaterial power exerted; since matter cannot act where it is not. And if, on any hypothesis, an immaterial cause must intervene; it will be needless to urge this instance in defence of a gravitating fluid supposed to be mechanical.

The instance of the sun's gravitating power being transmitted to the very centers of the planets, is the instance in debate, and cannot therefore be well urged to prove itself. It is contended that this gravitation is not the power of the sun. The sun, like every other body, can have no other power but a *vis inertiae*. And when it is asserted, that this power acts upon the very centers of the planets, as if the part on which it acts were not surrounded with the dense body of the planet; this is to own, I think, that this cannot be the action of matter upon matter; but rather the action of an immaterial cause upon it.

As to what is said of a medium being so rare, &c. there is no doubt a medium may be rare in any assignable proportion with respect to a given body, as gold: but a medium which impels bodies according to their quantity of solid matter, must be as dense as the very densest body it impels, that every particle in the body may receive its impulse from the particles of this medium. And it avails nothing to contrive hypotheses concerning the various possible density, or rarity, of bodies, or of this medium; since, if the density of this medium and of the heaviest body, must be the same, or equal, the difficulty still remains. Such a medium would as much resist the motion of bodies, as if there were a plenum of the very densest body; gold for instance.

As to the third instance of effluvia issuing from electrical bodies upon friction, and bringing up, or repelling leaf-gold or other light bodies at the distance of above a foot; I ask whether this can be

would then make no greater resistance to the moving force, than a hand ball now doth; nay not an infinitely little part of that resistance. A moving body could lose nothing of its *moment* (if *moment* were possible on this supposition) by carrying any obvious body along with it (1). These are consequences equally (and flagrantly) contrary to reason and experience.

XIX, So likewise any assignable body, moving with any possible celerity, would be stopped, and the whole motion quite extinguished, by any the least resistance possible; or rather this would be done by no force at all (m): for having no force to continue its motion, there should be no-  
thing

be supposed to be done, without attraction or repulse? And that is, Whether it can be supposed without immaterial power exerted? That matter should attract or repel other matter, or act any way but by immediate contact, and because of its *vis inertiae*, is directly impossible. Therefore adducing such instances to support a mechanical cause of gravity, is contending that one effect may be mechanical, because another is not mechanical.

(1) Mr. Herman hath a paragraph in the *Prænotanda* to his *Phoronomia*, the whole of which I beg leave to cite, both as it confirms what is here said, and nearly coincides with that description of the resistance of matter given above, N° 9. It is his 11th: *Sed inest etiam corporibus vis quædam passiva, ex qua nullus motus, nec tendentia ad motum resultat; sed consistit in renixu illo, quo cuilibet vi externæ mutationem statûs, id est motûs vel quietis, corporibus inducere conanti reluctatur. Quæ resistentiæ vis, significantissimo vocabulo, à summo Astronomo Joh. Keplero vis inertiae dicta est. Hæc vis inertiae in corporibus quiescentibus, se satis prodit; etenim corpus quodcumque A in aliud, sed quiescens, B impactum aliquid de sua vi & motu amittet, excipiensque B aliquid virium & motûs ab impellente A acquirat. Ex quo claret, quiescens corpus B reapse vim aliquam passivam habere, à vi in id incurrentis corporis A frangendam atque superandam; alioqui impellens A post occursum nihil de suo motu amisisset debuisse, cum corpus quiescens B, si resistendi facultate careret, alterius motui nullam remoram asserere possit, adeo ut ambo, impellens A & impulsus B, eâ ipsâ celeritate, quâ corpus A ante occursum ferebatur, etiam post impactum incedere deberet, quod phænomenis adversari nemo non videt.* The same argument will shew the *vis inertiae* also, as easily, in moving bodies. For if A be supposed to come up on B moving in the same direction, but more slowly, the first will lose, and the last gain some velocity; just as in the former case. And generally, there is no instance of the action of bodies upon bodies, where it doth not appear, if we reason rightly; since all such action proceeds from it, as is shewn N° 10, and fully explained in the next paragraph.

(m) Dr. Keil expresseth the case both of this and the last paragraph, in the place cited above at the note (d) clearly. *Quidam sunt philosophi, qui corpus ex sua naturâ tam ad motum quàm ad quietem indifferens esse supponunt; at per indifferentiam illam non (ut opinor) intelligunt talem in corporibus dispositionem, per quam quieti aut motui nihil omnino resistunt; quippe, hoc posito, sequeretur corpus quodvis maximum summâ celeritate motum, à minimâ quâvis vi posse fisci; aut si quiesceret magnum illud corpus, ab alio quovis minimo propelli, absque ullo velocitatis corporis impellentis decre-*

thing to be overcome, or no contrary force would be necessary. Let a man reflect a little in his own mind on the nature of such a consequence as this. Hence it is palpable that the force of moving bodies to act on other bodies, or what is called *moment* in them, proceeds solely from their resistance to a change of their state. Or, it is their primitive resistance multiplied by their celerity; or the force necessarily impressed on them to overcome this their resistance, and equal to it, and which they retain. This will be plain by an example. The force necessary to be impressed on the body A, to make it move with the celerity C, overcomes its natural resistance once (so to say), or overcomes its resistance to be moved with this degree of celerity; which state it obstinately continues in, or retains the degree of force impressed. And the force necessary to be impressed upon it, to make it move with a degree of celerity more, or with 2 C, which is just as much as was impressed the first time, overcomes its natural resistance a second time; and this second impressed force it also retains, because of its inactivity to destroy, or lay it down. And just so, it retains the third force impressed, equal to any of the former, and necessary to overcome its equal resistance to be moved with a third degree of velocity, or with three times C altogether. And so on. Therefore the whole resistance now will be the three forces impressed, equal to the three different resistances made: so that, as was said, the *moment* is equal to the primitive or first resistance multiplied by the celerity, or to the force impressed to overcome that resistance (n). Nor is there any thing more absurd than that any number of degrees

*mento; hoc est, corpus exiguum quodvis in aliud maximum impingens, posset illud secum abripere, sine ullâ ipsius retardatione; & utrumque corpus post impulsu junctim ferrentur eâ celeritate, quam prius illud corpus exiguum habebat, quod absurdum esse omnes novimus. Non igitur indifferentia illa sita est in non renitentia ad motum ex statu quietis, aut ad quietem ex statu motus, sed in eo solum, quod corpus ex sua natura non magis ad motum quam ad quietem propendeat, nec magis resistit transire à statu quietis ad motum, quam à motu rursus ad eandem quietem redire.*

(n) Here it hath been suggested, "That what I think so evident about the force of bodies is disputed by s'Gravesande, Bernouilli, &c. who estimate it by the square of the velocity, and not by the simple proportion of the velocity." To this I answer, that Mr. Leibnitz, and those who follow him in this particular, do not deny matter to be a resisting substance, more than others; and as long as this is allowed, the main conclusion stands, let that resistance be in what proportion it will. It would be of no service to a sceptical objector to allow the resistance of matter, and only quarrel about the proportion it is made in. But farther, I cannot help thinking still, that what is here said about the force of bodies is very evident to any one, even in the simple



degrees of celerity, abstractly considered, or without resistance, should constitute *moment*: which yet the denying of what is here said would infer.

simple coarse way it is deduced in this paragraph: great men have shewn it in a better way, and demonstrative form. All sides, I think, grant that the resistance any body, as A, makes to be moved, is the same with the resistance it makes to be stopt again: but if that were as the squares of the velocities, the body A would make four times the resistance to be moved with 2 C, as it doth to be moved with 1 C; and nine times that resistance to be moved with 3 C; 16 times that resistance to be moved with 4 C, &c. But this is extremely absurd; for, from the same reason that A resists any change of its state of motion (or rest) at all, it resists equal changes equally: and, as I have said in this N<sup>o</sup> 19, A moving with 1 C, is as much at rest with respect to A moving with 2 C, as A moving with 0 C is to A moving with 1 C; or the changes from rest to motion are equal: and therefore contrarily, from motion to rest.

Besides, it is a standing theorem in mechanics, that the state of the center of gravity, resting, or moving uniformly forward, is not changed from the action of bodies among themselves, or their shock on each other. Nor is it less evident that 2 A moving with the celerity C, hath twice the force of once A moving with the same celerity. Now supposing A moving with the celerity 2 C, to encounter directly 2 A moving with once C, the center of gravity rests before the shock: but since (on this supposition) the contrary moments are as 4 and 2, the center of gravity and the bodies will move after the shock. Which, I think, would confound the laws of the congress of bodies, both elastic and unelastic.

Moreover, it is impossible the forces of bodies falling by gravity can be in the proportion of the squares of the velocities. Such a motion is uniformly accelerated, as Mr. *Wolfius* owns and demonstrates, *Theor.* 14. *Element. Mechanicæ*; or such as receives equal increments of velocity in equal times, *Defin.* 15. *Element. Mechan.* Therefore the increments of velocity, or the impulses of gravity which cause them, must be unequal in equal spaces of their descent, the fewer always the farther they have descended; for, the velocity always increasing, the equal spaces are run over in shorter times. The forces therefore cannot be as the spaces fallen through (which are in the same proportion as the squares of the velocities) unless the bodies received an equal number of impulses in equal portions of these spaces. In four times any space the body receives but twice the number of impulses as in once that space, because but twice the time is spent in the fall; in nine times that space, but three times the number of impulses, &c. In this case then, they who follow Mr. *Leibnitz's* hypothesis, will be pressed with absurdities, say what they can; for either the body receives four times the number of impulses in twice the time, nine times that number in thrice that time; and so on, increasing in the ratio of the squares; which is monstrous, and could never produce a motion uniformly accelerated: or if the impulses are but simply as the times, then twice the number of impulses impresses four times the force on the body, thrice that number nine times that force, and so on in the ratio of the squares again; which is as monstrous an absurdity on the other side, and directly opposite to that shewn above, where the body made four times the resistance to be moved with twice the velocity; and here it requires but twice the number of impulses to receive four times the force.

Better judges than I have observed that Mr. *Wolfius*, in endeavouring to demonstrate that the forces of falling bodies are as the squares of the velocities, applies in the proof a proposition which has nothing to do with descending bodies: and that *Bernouilli* in his demonstration (*ibidem*) supposes the compounded force equal to the sum of both the compounding forces, or confounds mechanical composition and resolution of forces with arithmetical addition and subtraction of them.

Calling the *moment*  $M$ , and the resistance  $R$ ; it will be  $3 C R = M$ , and not  $3 C = M$ . And since, from the reasoning in N° 4. it is also  $3 C A = M$ , it follows that  $3 C R = 3 C A$ , or  $R = A$ . That is (if matter resist at all) every part of the body  $A$  resists; or there is no unresisting matter in it. Besides, we may be satisfied that the body will resist the equal changes equally; since  $A$  moving with the velocity  $1 C$ , is at rest as much with respect to  $A$  moving with the velocity  $2 C$ , as  $A$  moving with the velocity  $0 C$ , or resting, is with respect to  $A$  moving with the velocity  $1 C$ ; or their relative velocities are equal. If we conceive two men riding, the one after the other, and equally fast, they are relatively at rest, as if they were both standing still ( $0$ ); since the distance between them is always the same. It is the same thing as if they were both carried in a ship with that celerity, and the same distance between them.

XX. Therefore, if we would at any time silence all our doubts about the inactivity of matter, and be practically convinced of its resistance to all change of its state, we need only call to mind *that force, or moment, in it to act on other matter, is only the sum of all the forces impressed upon it ab extra* (that is by some immaterial Being, N° 14 and 15.) *to overcome its resistance to motion; and retained by it, because of its farther resistance to change the state it is thus put into.* And hence, as was asserted N° 16. since matter moving by gravity, attraction, elasticity, repulse, hath moment or force, it is a plain case it is *resisting matter in these motions*; and that it is impelled in them, by something without itself, or *not matter*; and that the moment here, as elsewhere, is but the aggregate of all these external impulses impressed upon it to overcome its resistance to be moved with such a degree of celerity, and conserved in it, because of its constant farther resistance to suffer any change of that present state; and that, unless matter thus resisted a change of its state, and were impelled by some force *ab extra* to change it, no body would be heavy; and elasticity or repulsion would be without effect.

XXI. This also confirms what was said in N° 10, that unless matter resisted a change of state, *the action of matter upon matter would be inconceivable, or rather impossible.* For there could have been no action where

(0) *Xenophon* long since observed this: *Καὶ γὰρ ἴαυ ἀμφοτέρω ταχέϊ ἢ, ὅμως δὲ πλησίον γίγνηται ἀλλήλων, ὥστε πρὶ ἰσηκρότα ἔσται.* *Cyropæd.*

there was no moment, or force, to act ; and there could have been no moment where there was no resistance ; since (to repeat it once again) from N<sup>o</sup> 19. it appears that the moment of bodies is only their primitive resistance to a change of their state multiplied by their celerity ; or the force equal to that resistance, necessarily impressed on them to overcome it, and retained by them. Let us say then what would have been the result, if a body in motion had come upon other bodies at rest, and see if any consistent effect could have been produced. Either it must have been stopped on coming to contact with the smallest atom, since it had no force to carry that along with it ; and thus all the bodies in the universe, upon coming to contact, would have remained one motionless, torpid lump ; or else, since other bodies had no power to resist, although it had no power to impel them, they must have all hurried on, through the immensity of space, in one uniform direction for ever. Thus it appears no consistent effect could have been produced ; nothing that is intelligible or possible ; and that the tendency in body not to change its state, not to be active, is yet the reason why body acts on body, as was asserted in N<sup>o</sup> 10. and that without this stubborn inactivity, the material world, this great system of visible things, would have been something inconceivable and impossible ; since motion in it could have had no possible effect. From this we might be led to see that matter must resist a change of its state of rest or motion, as it is a solid extended substance : but first let us stop a little, to see how far we have brought the controversy with the Atheist.

XXII. By what is said it appears that his sinking cause is already reduced to a miserable dilemma, on either side of which it must inevitably perish. For either matter is *resisting matter* ; or it is not. If it is resisting matter, it could never move itself, by what is said in N<sup>o</sup> 14 and 15 ; since two conatus's mutually destructive of each other could never be planted in it ; and if it is *unresisting matter*, it could never move other matter, by what has just now been said N<sup>o</sup> 21. unless that other matter could be moved by nothing at all ; and this though we should suppose it some way or other first moved itself. So that in either case matter can never become a self-moving substance ; *no not by any power*, because it implies a contradiction ; for unresisting matter could no more move the matter of a plant, animal, or of the human body, than resisting matter could. This deserves our notice. There is no less need of an immaterial Mover on the one supposition than the other ; nor could such matter have been of any imaginable use in the



material world. Unresisting matter is a yet more disadvantageous supposition to the Atheist, if possible, than resisting matter is. Nothing could have been effected by it. *Lucretius* could never have patched up his wretched universe out of such stuff. He is forced to suppose gravity natural to matter; that is, by N° 16. he supposes it resisting matter; and therefore such as wants an immaterial mover. He supposes his matter eternal; which in the last section of these papers it shall be shewn not to be. He gives it a power of changing the direction of its motion; which as has been shewn in N° 11. of this, it has not. And, lastly, he makes his atoms infrangible to all power, which, as shall be shewn, they are not. If these four things had been denied him, he would have been forced to introduce an universal non-existence; for his casual world without these returns to nothing. In the supposition of resisting matter, motion might be in some degree communicated by one body to another, because of the resistance; but in the supposition of unresisting matter, every body that is moved, must want an immaterial mover, because of the want of *moment* in one part of matter to act on another part of matter. In short, I believe there is no man but is already convinced in his heart of the necessity of matter's being a substance resisting all change of state in itself; and of the impossibility that ever matter can become, by any power, *a living, self-moving being*. Who could have thought that mere passivity, and want of power in a substance, should have been so useful, so necessary in the universe! But this always happens when we offer to mend the works of infinite wisdom; we fall into nothing but downright contradiction (*p*). After this reasoning

(*p*) With respect to the reasoning in this paragraph, it is obvious, I think, that what is concluded of matter in general, must be true of any particular part of it: for what agrees to all possible parts, will agree to any one which a sceptic might pitch on to argue from. However, I take notice of this, because it hath been observed, *That my adversaries will not readily adopt a system of unresisting matter; but rather a system of resisting unactive matter, actuated by some small part, endued with particular powers and faculties, and particularly with a self-motive power*. And again, *That some may pretend, that matter may have been so made, as to have its inertia with a particular exception, or restriction, or that matter might have had its inertia with the exception of gravity*. In case of such an objection, it is replied, that all that hath been said from the beginning of the section is applicable to, and therefore may be understood to have been said concerning this small part, supposed to be endued with particular powers and faculties above the rest: and it must conclude against that part, how small soever, if it concludes at all concerning any part. As to this small part, I would ask, if it is matter at all? and then, if it is resisting or unresisting matter? If it is not matter at all, we have nothing to do with it: if it is matter, it must either resist or not resist. It is here supposed resisting matter, and such as

ing here, let me desire the reader to reflect a little on Mr. Locke's property of spontaneous motion superadded to matter, and consider how the possibility of that hypothesis stands now; but it is enough to have mentioned this here, since it will come in afterward.

XXIII. We shall conclude the necessity of the *resistance* of matter with greater evidence, see the connexion it hath with solidity itself, and there-

acts on other matter; and that is, by all that hath been said before, matter utterly incapable of being endued with a self-motive power. If it is unresisting matter, the supposing its resistance to motion taken away, makes it equally impossible that ever it should move any thing else. The sceptic is at full liberty to try to make a mover out of *unresisting matter*; and therefore out of matter in any shape he can put it in. Besides that the supposition of unresisting matter will immediately appear contradictory. As to the other faculties and powers mentioned, (among which perhaps is meant Mr. Locke's thought and volition) it is too soon to come to these yet.

And now with what restriction or exception has matter got its *inertia*? If the resistance of it were but the hundredth or the thousandth part of what it is, the argument is still as demonstrative as if it were a hundred or a thousand times greater than it is. And when it is supposed to have none at all, the whole difficulty starts up undiminished in a new form.

I shall here obviate another evasion, which hath not yet been suggested, only because it is possible it may be, *viz.* That *unresisting matter doth not act by material impulse, contact, or pressure, as resting matter doth, but by some other virtue or efficacy*. If this should be said, it is answered, that all matter is confined within a terminating surface, or surfaces, beyond which it doth not exist, and therefore beyond which it doth not, *cannot* act. Nothing can act where it is not. This is one of the plainest, most unexceptionable principles. To say a thing acts, and yet is not where it acts, is to say nothing acts there. Where a thing is not, nothing at all is, no cause at all with respect to that thing; and if it were not for something else, no action or effect could be there produced. This lets us see that a *sphere of activity* taken in this sense, though it may be a learned word, is a real contradiction. Spheres of activity suppose either material action, or immaterial power exerted; or they are nothing but empty sound. Unresisting matter could not indeed act by *pressure*; it shall be shown immediately, or rather it is self-evident, that upon *pressure*, nay upon the *approach to pressure*, it ought to shrink up, and be annihilated. It is not so much as capable of contact. It is the same as unsubstantial matter; the shadow, the name of matter only. Now this unsubstantial phantom, since it is incapable of contact, must, if it act upon other matter, act where it is not; that is, *not act* there: for, as I have said, matter cannot act beyond itself, or without its terminating surface. But perhaps a power, virtue, efficacy, faculty, (or what shall we call it?) gets once without the terminating surface, and entering the other resisting matter, overcomes its resistance. But in the transition from the one to the other, what is the *subject* of this *migrating power* or virtue? Power without a subject of inhesion is but the name of power. It could as well act where it is not, as the power of it act where it is not itself. Observe, the other resisting matter is incapable of receiving this transitive faculty to be lodged in it, as hath been shewn (N<sup>o</sup> 14, 15.) Therefore such faculty should stand without doors, when it came, though we should suppose it capable of travelling so far alone.

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fore be more familiarly convinced of it, if we observe what use it is of both in our own and other animal bodies, in one particular respect, viz. that of *progressive motion*; and from thence infer with respect to other motions both in animate and inanimate bodies. Though our bodies did not at all gravitate to the earth, nor were supported by it, as a *solum*, or *sustentacle*, yet the resistance it affords would be still absolutely necessary to our *progressive motion*. Every step we make, we push the earth from behind us, with our hindmost foot, to wit, and the resistance it makes, since action and re-action are equal, gives us our propensity, and drives us forward: whereas if it were unresisting matter, we should never be able to move, or even to creep, from one place to another. For either the earth would yield from our foot pushing, without communicating any action or force to it, and leave us disappointed of our aim, so that the foot and the part it touched should never be able to separate; or upon giving the stroke, they would mix, and penetrate into one another's dimensions, and lose their extension; that is really, be reduced (in part) to nothing. Borelli, in the chapter *De gressu bipedum*, explains very naturally this whole appearance.

—*Præterea* (says he) *dum innititur [homo] super duos pedes, fit motus promotionis centri gravitatis ejus, quatenus uno conto cruris postici elongati per extensionem pedis, impulso pavimento retrorsum, erigitur machina universa perpendiculariter super anticum alterum pedem firmum, & parum antè impellitur, & sic motu transversali promovetur. Postea subito pes posticus elongatus à terrâ suspenditur, flexis tribus articulis coxendicis, genu, & pedis extremi, à propriis musculis, qui minus quartâ parte ponderis humani corporis suspendunt; & ab impetu concepto à præcedenti impulsu, & à flexione capitis & pectoris, ultra situm pedis firmi solo figitur. Quo factò secunda statio celebratur, & postea, eâdem periodo, pes posticus operando gressum continuat (q.)* We could not so much as creep, I say, upon this supposition, from one place to another; for if we went on all four, as the quadrupeds do, there is manifestly a *pushing*, and *resistance*, to advance the center of gravity of the body, in that case as in the former. Or if we successively thrust forward our head, and the fore parts of our bodies, and dragged up the feet and hind parts of them, as multipedous insects and worms do; be-

(q) *De motu animal. part. 2. prop. 158.* See also *prop. 156. Quomodo in ingressu moles humana corporis antè promovetur. Prop. 164. Modus quo fiat incessus hominum super glaciem. Prop. 168. Animalia sextipedia quomodo incedant: & prop. 13. part 2. Quo artificio mechanico lumbrici repere possunt.* It is evident also from this reasoning, that fowls could not fly, nor fishes swim, if the air and water did not afford them resistance. See *prop. 190 & 214. part 1.*



sides the former resistance between the earth and the matter of our bodies, this supposes a resistance between the parts of our bodies themselves. When the lumbricus thrusts forward the fore part of its body, it is by the resistance between it and the hind part. How could this be, if matter were unresisting matter? The parts counter-acting each other, must sink in, and penetrate into one another's dimensions; or else remain in that state, motionless, and without possibility of advancing. In that case, when we thrust forward our hand (if we could thrust it forward) to catch any thing fixed and prominent, to help to drag up the rest of the body, every thing must yield; and really, for want of being able to resist, be reduced into non-extension. It is because matter resists, that it can be made firmly to cohere, or is susceptible of *tension, pulsion, pressure*. No motion can be without some of these, either when it is begun, or when it is again stopped; nor therefore without the resistance of solid parts to solid parts.

XXIV. Moreover, supposing we were tied to no firm sustentacle, as the earth is, by the impulse of gravitation, but that a man were placed pendulous from any such great body; as progressive motion would be then without means or foundation in nature, so any motion of the parts of his body among themselves, would be equally impossible. To extend the arm, or leg, supposes the trunk, or the rest of the corporeal moles, a *firm sustentacle* to afford resistance, and make motion possible: whence could this proceed, if matter gave way to the least pressure, or rather to no pressure at all? So the moving of the finger supposes the hand, or arm; or the moving of the tongue to speak, supposes the jaws, neck and contiguous parts, a *firm sustentacle* to supply resistance and re-action. The same is to be conceived of every internal action in the animal œconomy; the motion of the *blood* and other *fluids*, the action of the *muscles*, of the *stomach, heart, guts*; in a word, every material action as material, and excluding the extraneous impulse of any immaterial agent, supposes re-action and resistance to make it conceivable. I can as well conceive that the shadow of my hand could wield, and move the pen while I write, as that my hand could do it, if the parts of it had no resistance. Therefore, whatever principle or hypothesis takes away resistance and re-action from matter, destroys *action* itself, and, in effect, the nature of matter: for, as resistance supposes solidity; so contrarily, solidity supposes resistance; or, because the parts cannot yield to each other, therefore they must resist.

This

This lets us see where resistance is ultimately lodged, and whence only it can be derived; it springs from *solidity*, and traced backward is found seated there. And this way also we again see, that upon the supposition that matter did not resist or re-act, that is, in effect, did not act, the organized body of an animal, or plant, (where there is a circulation of action and re-action, as well as of motion) would have been a thing impossible, as hath been observed before (N<sup>o</sup> 8 and 22.)

XXV. From what has been said we may observe, how wisely animal bodies are tied down to this great body of the earth, by the constant impulse of gravitation; for since there could be no progressive motion without the resistance and re-action of such a firm sustentacle, if by any cause or accident, a living creature were once detached from the earth, at whatever distance, it should be fixed there, as in fetters, without being able to return, or move in any direction. And this must happen, on many necessary occasions, both to man and beast. In running swiftly, in offering to leap, in making many necessary efforts, they would lose their hold of the earth, fly from it, and at length remain suspended, for want of something to resist their efforts to bring themselves down again (if the distinction of down and up did not then evanish; which if it did, I omit to mark their influence it would have on the animal œconomy). The whole body might perhaps turn some way on its own center of gravity, by the struggle of the limbs among themselves, between which a resistance and re-action would still be given; but this would never advance the center of gravity itself, nor therefore the whole body, to any side, nor in any direction. They would every where be found hanging, like flies caught in a cob-web, miserably starved to death. For the evil would be without remedy. If one offered to pull down another, by any means, they would meet at their common center of gravity, and there both remain fixed. One man might raise an hundred, without any of them being brought to touch the earth again; if they were but an inch distance from it, they would still be miserable. With what fearful caution should we then tread on the ground, so as not to meet with any rebound from it! How much are we indebted to the goodness and wisdom of God, who hath cemented his works otherwise, and wrought our security by wonderful power! For there was no Epicurean necessity of the present constitution, but a great possibility of the contrary, even of this very case we are speaking of; let us not then think it imaginary and impossible, for the contrary obtains not, but by the incessant

fant action and power of this Being exerted, in producing a constant gravitation, as we see pretty clearly already, and shall see more fully hereafter. And then what goodness was it in our Creator, to make this our earth so massy and large (which is a disposition the Atheist finds fault with, as shall be shewn afterwards) that there might be no sensible proportion between it, and those creatures that were thus to move upon it; that it might not give way instead of resisting and re-acting, when *herds, armies, and elephants* want a firm obstacle to push them forward in their progressive motion! If a living creature were to move on a mass of matter nearly of its own bulk, there would be a mutual *yielding* and *rolling* between them; although they were impelled to each other by a constant gravitation. And this would be always inconvenient, as long as there were any sensible proportion between the *animal* and the *sustentacle*. But as it is, though our earth is pendulous in the midst of heaven, our action is exerted on it as against a *firm basis*, because of its bulk and massiness.

XXVI. To return then to where we left off in N° 21, viz. to shew that matter as a solid substance must necessarily resist all change of its state of rest or motion; it follows from the argument there mentioned, if it did not thus resist, that then two contradictory propositions would both be true. For the least atom in motion coming upon any quantity of matter at rest, the whole terraqueous globe, *v. g. must necessarily carry that whole mass along with it*, with the same celerity; because it makes no resistance to be put out of a state of rest; and yet *could not carry it along*, making no resistance itself to continue in its own state of motion, and therefore not acting; action being the effect of resistance. Thus the same proposition would be both true and false at once. Let us suppose again two equal bodies encountring each other directly, and with equal celerities; these meeting must stop each other, or penetrate into one another's dimensions. One of these must certainly be granted. If the last, matter is an unextended substance, the *phantom* or *shadow* only of solidity: if it is said they are stopped, here is a plain positive effect produced, by no action or cause; by nothing, which is a very express contradiction. By supposition this is not the action of matter upon matter, there being no resistance on either side; and there is nothing else to which the action can be ascribed. Again, since action, pressure and resistance, are the same thing; and since matter, on this supposition, is incapable of action or resistance, it is equally incapable of pressure, as in N° 23 and 24, which surely is resistance.



stance. So matter by simple pressure (or rather upon the approach of pressure) would shrink up and be contracted into less dimensions (*r*); and this still farther and farther. Thus such unresisting matter might be quite annihilated by pressure, or rather without it, because there is no resistance or repulsion. That is, it might be annihilated by nothing; that is, it is not an impenetrable extended substance. Therefore I conclude that matter as a substance solidly extended must resist all change of its state of rest or motion; and that this resistance is as inseparable from it as solid extension is.

XXVII. Because the great hinge upon which all turns in the present subject, is the proving that a *vis inertiae*, or resistance to a change of its present state of rest or motion is essential to matter; let me be permitted to give another very short and easy way of bringing out this conclusion, which is as follows. Matter resists either by its *internal constitution*, as it

(*r*) I shall endeavour to give an example to illustrate this shrinking up by pressure, because it is said, it seems, obscure. When a man leans on his stick, there is a mutual pressure upwards and downwards between all the contiguous parts of it, through the whole length of it, if it resists at all. Now if we suppose it not to resist, or if the resistance were not continued from the one end to the other by this mutual pressure, he would have no support: or if the two extremes made resistance, and the middle part none, that mid-part would shrink up till the two resisting parts met. This seems plain enough. I for my part cannot conceive, if it made no resistance at all, that it would either suffer pressure, or be of more use to him than the shadow of a staff. And it is the same thing in any case where motion is begun in a body, or stopp'd in one. The resistance in either case supposes a mutual pressure of all the parts contiguous to each other, through the whole solidity of the body. If matter therefore is denied to resist, it is made incapable to bear pressure, even though it were at rest, as in the case of the staff; or the solidity of it is taken away. For it is very observable, I think, that this resistance and pressure obtains even where there is no motion; as in a heavy body when it lies on the pavement; all the parts press mutually on each other, and therefore make a mutual resistance. And further, from such an instance as this it can be shewn, that this pressure is propagated through the whole terraqueous globe: for the parts of the pavement immediately in contact with the heavy body, press against and resist it; and the parts in contact with these press against and resist them; and so on, as long as there are any parts in contact with the parts pressed: for the pressure can never be against nothing at all; that is absurd: there would be then action without re-action: and if any parts could not resist, or bear pressure, these would shrink into nothing, and leave the resisting parts to meet. It is very much to be doubted whether there be any matter in the world but what suffers some kind of pressure or other, and therefore makes resistance. Even in the cohesion of matter, the parts are impelled to one another, and therefore resist by their impenetrability. Resistance therefore is not only made in the congress and shock of moving bodies, but, which is less attended to, in all bodies, and at all times, whether in rest or motion.

is a solid extended substance ; or from the influence and operation of something external. To begin with the last of these, if matter *resists* from the influence of some external cause, it is either the power of an immaterial Being constantly exerted upon it, or from the impulse of other matter. Now if any man, in order to avoid being forced to own that resistance is essential to matter, should say *it resists by the power of an immaterial being constantly exerted upon it*, that way he incurs the very thing he would deny, and which I contend for. And it would be strangely perverse to deny the resistance of matter, lest the existence of an immaterial Being should be evinced ; and yet to own an immaterial Being, in order to deny the resistance of matter. This therefore cannot be said ; but if it should, the cause is given up. And if one should say in the next place, *that matter resists not internally, but by the external impulse of other matter*, he affirms a direct contradiction : for both the kinds of matter in his supposition (the matter impelling, and the matter impelled) must be supposed to *resist* in this very impulse, or to *resist internally*, otherwise the impulse could have no effect. Thus it appears it is not in an adversary's power to suppose matter resisting otherwise than by its internal constitution, or as it is a solid extended substance. And if we should suppose the power of an immaterial Being constantly exerted upon matter, to make it a *resisting substance* ; this can be no other way than as his power is constantly exerted upon it, to make it a *solid substance*. Therefore I conclude, as before, *That resistance, or a vis inertiae, is inseparable from matter ; or is as essential a property of it as solidity*. And therefore all the reasoning from the beginning of the section hitherto, so far as it was *conditional*, or depended upon proving that the *vis inertiae* was essential to matter, becomes now *absolute* and *demonstrative*. And whatever other truths, or consequences, can be fairly drawn from this *principle* hereafter, must be such as we may confidently rely upon.

## S E C T. II.

*The consequences of the want of active powers in matter, viz. that all those effects commonly ascribed to certain natural powers residing in matter are immediately produced by the power of an immaterial Being. Hence a constant and universal Providence in the material world, extending to the minutest things. Hence the necessity of an immaterial Mover in all spontaneous motions, &c.*

**T**HE consequences of the truth established in the last section are of great weight both in religion and philosophy; therefore I beg leave still to proceed at leisure from one of these to another, and to be particular in deducing them. And, first, the chief consequence that offers to us from what hath been said hitherto is, *the necessity of an immaterial powerful Being, who first made this dead substance matter, originally impressed, and still continues to impress motion upon it.* The first thing that appears in his nature, as he is thus discovered, is his immateriality, being the powerful Creator and Mover of matter; for it is already evident, and shall still be made more plain, that such a powerless, dead substance, as matter, must owe its existence to something else. Spinoza's absurd assertion, *That every thing in the world was God, or that nothing but God could exist (a),* included in it this plain contradiction of making the effect the same thing with the cause, and confounding the most opposite natures in the universe. For it is absolutely impossible that the same being [God] should be both material and immaterial; or void of all power, as matter is, and at once the origin of all power, as an immaterial Being must be. But particularly it appears from what hath been said, how contradictory Hobbes's opinion is,

(a) *Præter Deum nulla dari, neque concipi potest substantia. Ethic. Part 1. prop. 14. Una substantia non potest produci ab alia substantia. Ibid. prop. 8. Ad naturam substantiæ pertinet existere. Ibid. prop. 7. Res nullo alio modo, neque alio ordine à Deo produci potuerunt, quàm produci sunt. Prop. 33.*



who asserts *that there is nothing but matter in the Universe (b)*. For if there were nothing in the Universe but a substance which resists all change of its present state of rest or motion, or to which a *vis inertiae* is essential, it is certain no change of state could ever have been effected, *nor would there have been a substance in nature to which active power could have belonged*. And universally, as every other kind of atheism asserts matter to be endued with certain *original powers*, which may supply the absence of a Deity, or of immaterial Being, in the world; this sort of reasoning concludes equally against them all, by shewing the impossibility of all their *hypotheses* at once: and this is obvious to any person, without farther arguing. So that to begin with examining the nature of matter, and shewing its *inactivity*, makes the shortest work with Atheists of all denominations. And this is a more effectual method, I think, than to deny the existence of matter altogether, in order to confute Atheists. Besides, from this way of first discovering the Deity, a more surprizing scene of providence will immediately appear, than from any other kind of argument we could have made use of. In order to this, the consideration of the nature of matter shall be farther pursued; the several instances where the power of an immaterial Being is exerted upon it, particularly shewn; and the effects, commonly but falsely ascribed to *certain powers* in matter, shall be restored to their *proper causes*, as in right philosophy they should: which method must of course carry us into a variety of subjects, and through a great part of natural philosophy.

II. To begin from the universal resistance of matter as it is a solid extended substance; from this we may satisfy ourselves of the absurdity and falseness of an universal Plenum. For, passing by at first *Lucretius's* reason [*Principium quoniam cedendi nulla daret res*], if there were an infinite plenum, or even but a finite one in any part of space, supposing the matter as subtil and fluid as possible; since as impenetrable it must resist, N<sup>o</sup> 26. sect. 1.) and that both in proportion to the celerity with which it

(b) In the 46th chapter of his *Leviathan* he says, 'The world (I mean not the earthly one, that denominates the lovers of it worldly men, but the universe, that is the whole mass of all things that are) is corporeal, that is to say body; and hath the dimensions of magnitude, namely, length, breadth, and depth: also every part of body is likewise body, and hath the like dimensions; and consequently every part of the Universe is body, and that which is not body is no part of the Universe. And because the Universe is all, that which is no part of it is nothing, and consequently no where, &c.'

was struck, (N<sup>o</sup> 4.) as also to the quantity of it, or number of particles to be struck at once, (N<sup>o</sup> 6.) the fluid being the densest possible, as without any vacuities, by supposition; the resistance would be the same in the open air, or in an exhausted receiver (if it be not absurd to speak of exhausting on that supposition) as in water, or mercury (&c) which is absolutely contrary to experience. But really, in an absolute plenum, the distinction betwixt *fixedness* and *fluidity* would be lost; and we might as well conceive a fish to swim, or a bird to fly, in the heart of marble or adamant, as in such a plenum: and then *Lucretius's* principle takes place.

III. Moreover, since all bodies encountering in opposite directions, mutually diminish or destroy the quantity of motion in each other; for opposite forces, if equal, beget an equilibrium, and rest; or, if unequal, the excess of the greater above the less only remains; and since this obtains, though in a less degree, when they impinge obliquely (N<sup>o</sup> 11. sect. 1.) it follows, *That from all action of body upon body motion is still impaired, and the quantity of it constantly decaying in the universe.* And here let me intreat my Reader to examine this conclusion well, and if it is rightly inferred, to admit it, and the consequences of it, honestly. Now since matter cannot re-excite the motion in itself; it follows that as an immaterial Power first impressed motion on matter, so it still re-produces the motion lost, and makes up the decays sustained. And upon this account, neither the Epicurean, nor any other atheistical system of the universe, could have been eternal, where there is no immaterial Mover to repair the decays of motion. One of the most wonderful ways, to us, of exciting lost motion in matter (if one way were more wonderful than another) is that of elasticity. The force of restitution is an immediate impression by an imma-

(c) Dr. Pemberton, in his Review of Sir *I. Newton's* Philosophy, B. 2. c. 1. sect. 14. speaking of this says, "And whereas such a fluid whose parts are absolutely close together without any intervening spaces, must be a great deal more dense than water, it must resist more than water in proportion to its greater density; unless we will suppose the matter, of which this fluid is composed, not to be endued with the same degree of inactivity as other matter. But if you deprive any substance of the property so universally belonging to all other matter, without impropriety of speech it can scarce be called by that name." He might have gone farther, I think; for an infinite plenum of matter that could not resist, nor consequently re-act, would, according to the reasoning in N<sup>o</sup> 26. sect. 1. upon pressure (or rather without it) shrink up into less dimensions: and one single stroke would annihilate as much of it, as where the pressure would have been otherwise propagated: that is, I conceive the whole of it in an absolute plenum. And then indeed it would have been matter in no propriety of speech.

terial Mover; for it resists this impression, as its having *moment* in its re-  
sultion shews (see N<sup>o</sup> 19. sect. 1.) But often from the congress of such bo-  
dies, more motion is excited, than was in them before the shock. *Hugenius*  
hath demonstrated, among other surprizing properties of the congress of  
such bodies, that if a series of them were placed so, that they might impinge  
on each other directly, their quantities of matter being in a geometrical  
proportion, and if the least is impelled against the next greatest, the  
quantity of motion will be increased in each of them to the last. Now if  
there be a hundred bodies in the series, and if the quantity of matter in  
each be double that in the former, the smallest in the series being impel-  
led against the next greatest, the quantity of motion, or force, in the last,  
will be two million of million, three hundred thirty eight thousand four  
hundred and eighty six million, eight hundred and seven thousand six hun-  
dred and fifty six times greater than it was in the first: or the force in  
the last will be to that in the first, as the number 2,338486,807656.13.  
to 1. (d). This number upon trial will be found exact, I presume; so  
that

(d) Let the bodies be A, B, C, D, &c. and as 1, 2, 4, 8, &c. if the distance betwixt A  
and B is called 1, the distance of the center of gravity from B will be  $\frac{1}{2}$ . The velocity of this  
center before the shock is as  $\frac{1}{2}$ , and as  $\frac{1}{2}$  after it; and the distance of B from it as  $\frac{1}{2}$  at the same  
time. The whole velocity of B is  $\frac{3}{2}$ , and the matter of it as 2; so its moment is as  $\frac{3}{2}$ . Just so,  
the velocity of the centre of gravity betwixt B and C, is  $\frac{1}{2}$  of  $\frac{3}{2}$  (B's celerity) or  $\frac{3}{4}$ ; and C's ce-  
lerity double that, or  $\frac{3}{2}$ ; its matter as 4; its moment therefore as  $\frac{9}{2}$ . So D's celerity is  $\frac{3}{4}$   
of (C's celerity)  $\frac{3}{2}$ , or  $\frac{9}{8}$ ; its matter 8; and its moment  $\frac{27}{2}$ , &c. Thus the several moments in  
the last 99 bodies are the several powers of  $\frac{3}{2}$ ; and of the last it is  $\frac{3}{2}^{99}$ , which number is  
2,338486,807656.1299712, &c. The velocity is just as much increased, if the motion begins  
at the greatest body. Mr. *Herman* (*Scholium Prop. 42. lib. 1. of his Phoronomia*) hath somewhat  
a different number, viz. 2338520732310; but it is by taking the logarithm of  $\frac{3}{2}$  equal to  
0.1249388; whereas, carried to more places, it is 0.12493873660829995, &c. The second num-  
ber which he hath in the same *Scholium*, viz. 27103713483146067 should be 27104078502347682,  
for a like reason; which is the decrease of the velocity, if the motion begin at the least; or of  
the moment, if it begin at the greatest. See also Mr. *Whiston* concerning this, Lect. 5th, on Sir *Is.*  
*Newton's* mathematical philosophy. His numbers and account are something different; but he con-  
cludes thus: "Where (says he) in the former case is seen a most prodigious increase of celerity;  
" and in the latter, a more stupendous augmentation of the quantity of motion." So far is the  
Cartesian notion from being true, that the same quantity of motion is always preserved in the  
world. See with respect to this *Wolffius's Element. Mechan. Theor. 85.* and the *Scholium* of it.  
Indeed it is plain to the sense, that from the action of bodies upon bodies, motion is still de-  
caying in the universe, and reason establishes this still more authentically. If two bodies encounter  
with equal force, it is extinguished in both sides; and this is no less true when they are *elastic*,  
than when they are *unelastic*. The motion is certainly once wholly extinguished in both cases;  
for



that if the first was impelled with but as much force as the strength of a child could impress, the force in the last would be inconceivable. The battering rams of antiquity, or the modern cannon would scarce help us to form a notion of it. How then is it possible to conceive that poor sluggish matter should so prodigiously increase the quantity of motion in itself, without a foreign cause, an immaterial Power! And yet, rightly considered, this is not more wonderful, than that a stone, as soon as one lets it go, should begin to move to the earth, and still rush forward with a greater and greater rapidity. If this last motion were seen but rarely, the schools of philosophers would have been full of it: nor is there any one so little curious, who would not go far to see such a rare sight, if it happened but once a year. But the mere difference of happening frequently or seldom cannot change the nature of a thing truly wonderful in itself. The constancy of an appearance is not a mark of the fatal necessity of it; but of the goodness of that Being who makes it constant for our benefit; which is the present case, as was said above, N<sup>o</sup> 25. of the last section.

IV. As elasticity in general hath something very surprizing in it, so that of the air deserves our particular notice. What is called elasticity, or spring in the air, is only a repulsive force exerted between its particles (e).

*for if contrary force doth it in one case, it cannot not do it in the other, be it re-excited what way it will: and if matter cannot move itself in any case, it cannot move itself here; whence the conclusion is obvious. As I have said above then, I wish men would examine this argument on all sides; and if they cannot find a fault in it, that they would embrace the consequences of it with a philosophical ingenuity. I am of opinion, and think it would be easy to shew it, if one had leisure to run through the several particulars, that unless an immaterial Power continually re-excited motion in the material universe, all motion would stop in it, in a very short time, perhaps in less than half an hour, except that the planets would run out in streight-lined directions. And then what a face of things should we have! darkness, silence, and unsuccessive rest. For certainly matter of itself can pursue no end, obey no law, nor change the direction of its motion, nor any way alter its present state: and since in all motions in the universe an end is pursued, a law obeyed, the direction changed; and since in all the remarkable phenomena of nature there is a circulation of motion; the truth of what I here suggest must be pretty obvious to any thinking person.*

(e) See *s'Gravesande's Introduc. ad Phil. Newton. l. 2 c. 13. Experiment. 3.* and the reasoning upon it, where he says, *Sequitur aërem constare ex partibus sese mutuo non tangentibus, & sese mutuo repellentibus. Talem particularum proprietatem in multis occasionebus detegi jam vidimus; illamque & hic obtinere satis patet; causa verò hujus nos omnino latet, & pro lege naturæ ipsa habenda est, ut ex dictis inter N<sup>o</sup> 4 & 5 liquet.* In which place, as much is meant, I believe, as I here express; viz. that the repellency between the particles of air is the immediate effect of the power of God. He says after N<sup>o</sup> 4. *Nostri enim respectu non interest an quid immediatè à Dei voluntate pendent, an verò mediante causâ, cujus nullam ideam habemus, producat.*

For

For if a certain quantity of matter, as the compressed air in a condensing engine, exerts a force to dilate itself every way (speaking after the common manner, as if it were active) and take up more room, the parts of it have a tendency to recede from each other. No sort of attraction can explain such an appearance. Nor will little elastic convolutes, rolled up like the spring of a watch, nor small globules replenished with yet a more subtil elastic matter, agree with the perfect fluidity observed as much in all degrees of the compression of the air, as in its dilatation (*f*): not to mention that these hypotheses explain elasticity *by elasticity*. Whence the particles of air must repel, and keep each other at a distance: and the repulsive force must be conceived to be between every particle alike. -For if it were not, the greater force would still prevail on the less, disposing the particles at equal distances, till an equilibrium were settled through the whole mass. Therefore any quantity of air, how little soever, repels all the rest as strongly, as it is repelled by it: or the force of any part *counteracts* the force of the whole mass. This force is equal to the weight of the whole superincumbent atmosphere; or the weight of a column of water thirty one feet high, or of a column of mercury twenty eight inches high, and whose base is the same with the portion of the air we take (*g*): and this when the air is not compressed, but in the same state with the outward atmosphere. Now the use that I would make of this is, to shew that, abstracting from the reasoning in N<sup>o</sup> 14, 15 and 16. sect. 1. this is another contradictory appearance, unless we call in an immaterial Mover, that a thin film of air (for the whole force must be lodged in that, by what was said just now) of a foot square, *v. g.* whose natural resistance doth not amount

(*f*) *In omni enim expansione aut compressione, particulae facile moventur inter se.* Idem. *ibid.* And Sir *Is. Newton* speaking of this, (*Opt. p. 371. edit. 3.*) says, "It seems also to follow from the production of air and vapour. The particles, when they are shaken off from bodies by heat or fermentation, so soon as they are beyond the reach of the attraction of the body, receding from it, and also from one another, with great strength, and keeping at a distance, so as sometimes to take up above a million of times more space than they did before in the form of a dense body. Which vast contraction and expansion seems unintelligible, by feigning the particles of air to be springy and ramous, or rolled up like hoops, or by any other means than a repulsive power."

(*g*) *Wolffius, Element. Aërometricæ, theor. 1. Elater aëris inferioris æquatur ponderi totius superioris ipsi incumbentis.* And *cor. 1. Quoniam pondus aëris superioris inferiori incumbentis æquatur ponderi columnæ aquæ, cujus eadem cum volumine aëris basis, sed altitudo triginta unius pedum, vel etiam columnæ mercuriali, cujus altitudo 28 digitorum; elater aëris inferioris eidem columnæ aquæ, & mercuriali æquatur.*

to one grain, should yet resist, and support a weight, that might be a load for an elephant. The weight of a whole cubic foot of air is but about 506 grains, and the weight of such a film would scarce be a 506th part of that (*b*); and the pillar of water, or atmosphere, supported weighs about one thousand nine hundred and eighty four pound, (a cubic foot of water weighing about 64 pound). But if we consider that the elastic force of the air is reciprocally as the volume into which it may be compressed, and that five, six, or seven atmospheres may be thrown into the condensing engine (*i*), this single grain of air makes a resistance that would support several tun weight. And all this at a distance, and without material pressure or action, or coming into actual contact with the weight so sustained: so certain is it that an invisible hand intervenes here! Nothing can act where it is not; nor therefore matter beyond its own terminating surface. No human power, or invention, could bring the particles of air into actual contact, like those of water. They would then resist like those, and gravitate equally perhaps. It is no less than a downright contradiction that the less the particles of matter are, their force and action should be the greater. The very contrary of this is evident. Matter can only resist in proportion to its quantity; and that by actual pressure and contact. That a slender film of air should support a weight greater than the massiest beam could, without touch or pressure, is plainly impossible. Let me endeavour to render this appearance obvious and familiar, by a plain and easy comparison. If the leaves of a book, all in a parallel situation, and without coming to touch each other, should support a weight of many thousand pounds, even without touching or having any communication with it; no body would say that the power of some other being was not exerted in performing such an effect; for every one of these leaves would concur as little in it, as if they were not there. And such an effect is performed hourly, constantly; round us, over our heads.

V. If then we lay together what hath been concluded N<sup>o</sup> 14, 15, 16, 17, 26 of the last sect. and N<sup>o</sup> 3 and 4. of this; it follows that whatever matter is said to *attract*, whatever matter is said to *repel*, whatever matter is said to *restore* itself; whatever matter is *heavy*, or tends to a center, whatever matter is *light* (which is but comparative heaviness, and perhaps

(*b*) *Ibid.* probl. 5. *Invenire pondus unius pedis cubici aërei*; and the scholium of it.

(*i*) See *ibidem* theor. 9. *elateris aëris compressi est ad*, &c. and Mr. Hawksby's experiments.



all these various motions are reducible to attraction and repulsion; in a word, matter of all sorts, is but a dead substance in these effects; and it is another Being that performs all. And therefore the *descent* of heavy bodies by gravitation, or (again) by the laws of hydrostatics (which are but the methods of gravitation as it obtains in fluids) the *running* of rivers, the *rise* of vapours, the *fall* of rains, the *motions* of the clouds and wind, the *rolling* of the waves; in short all the *motions* we observe in the heavens, or on the earth, except the spontaneous motions of animals, and the immediate consequences of these (of which exception yet more hereafter) are the *immediate work of the first Cause*; as also the production of all vegetable and animal bodies, and all the mechanical motions that exist in these when produced (of which also more by and by) are to be ascribed to his immediate efficiency and power. For all these, without exception, are but the *effects* of the *natural powers* of matter (as they are called) and those powers are no other than the forces *immediately impressed by him*, in certain circumstances, to overcome its resistance to motion; and called natural powers, because of the constancy and regularity of the effect, the circumstances remaining the same (*k*). This is a surprizing,

G 2 active

(*k*) The invariableness and constancy of these effects, is the reason, I think, why we generally fancy them the action of matter upon matter only: but as I said lately, the constancy of an effect is no mark of the necessity of it, but of something else, (see N<sup>o</sup> 3. of this.) It is an unaccountable prejudice to be entertained by reasonable men and philosophers, that *no designing cause*, but such a *passive* and *necessary* one as matter, could observe such regularity and proportion! We ought to make just the contrary conclusion: for a designing, intelligent Cause is necessary in all proportion and regularity. (The work of chance and dead matter could not be so qualified.) And this not only in the first institution of the proportion, but in the constant observing of it. The action of gravity decreases, as the squares of the distances between the gravitating bodies increase: As this is an arbitrary institution, which no mechanism can account for; so no man, I believe, that seriously reflects upon it, can imagine that it could be mechanically observed. It is this very particular therefore that establishes the contrary of what is commonly drawn from it. Dr. *s'Gravesande* says, in the place cited above, at N<sup>o</sup> 17. sect. 1. *Sed illam [gravitatem] non sequi ex ullo impactu, juxta leges nobis notas, clarè patere contendimus.* What cause is so proper to act *regularly* in certain circumstances, and *proportionably* at certain distances, as an infinitely powerful and knowing one? Indeed if we were to impress a force on but one single particle of matter, it would be impossible for us to observe such a regularity and proportion, without exceeding, or coming short. And hence (though there is no consequence in arguing from us to him) we think no intelligent Being can perform such an universal effect. Hence again, what we think the power of no being can reach to, we ascribe to a cause void of all power, dead matter and blind necessity, as the likeliest to perform great things! This is not as it should be; philosophy bids us seek out an adequate cause for every effect, which certainly we shall find, if we reason

rightly;

active scene ; quite different from *Lucretius's* view of nature—*Totum vi-  
deo per inane geri res,*—where chance and dead atoms manage the bu-

rightly ; for there is not a defect of reason in the nature of things. Explain the present phæ-  
nomenon how we will, we must still have recourse to this Being for the proportion and regularity  
of it, both in the institution and observance : no shift, no sophistry can save us from this neces-  
sity. It is in our power, it is said, to excite electricity in amber, wax, glass ; to hammer  
steel, or heat it in the fire again. Not to enquire minutely here what it is we do, or how  
much of the effect we perform ; I say all this is true, nor see I any inconvenience from it.  
There is no difference, as to the regularity, between exerting the power immediately himself,  
and planting it to be regularly exerted by matter, if that were otherwise possible : and it will  
appear, I hope, that this is not the only instance, where the infinite power of God condescends  
to act upon our spontaneous election, (see N<sup>o</sup> 21 of this) and this without any ill consequence  
in philosophy. If there are certain effluvia excited by rubbing amber, glass, &c. that drive  
away, or bring nearer, light bodies ; which is not impossible ; yet what attracts or repels these  
effluvia ? They are still sluggish, inert little bodies that resist all change of state. We can nei-  
ther proceed in *infinitum*, to other and other effluvia ; nor find the first moving principle in matter  
of any sort.

Upon the preceding reasoning, and the whole subject of this paragraph, it hath been ob-  
served, “ That by my zeal to find more than mechanism in nature, some will think I take too  
“ much of mechanism away, while on every occasion I make immaterial principles interfere,  
“ which I should rather reserve, *cum dignus vindice nodus*: and that upon this account this argu-  
“ ment, in the present disposition of it, will be apt to shock many readers.” But it is answered,  
that since the particulars mentioned in this paragraph are the consequences of that principle laid  
down in N<sup>o</sup> 14 and 15, and afterwards concluded N<sup>o</sup> 26 of the last section ; if there were any  
hazard in owning them, then indeed my adversaries could press them upon me, and make me stand  
by them, or relinquish the principle that infers them. If that principle is allowed then, I can-  
not abandon these consequences of it. And if it is wrong, it would be foolish in me to think  
such a piece of sophistry should pass undetected. All therefore turns on that. As to mechanism,  
I shall consider it as exactly as I am capable of hereafter. Only let me observe here, that I am  
not singular in advancing these things : a much greater man carries the argument just the same  
length. Let it be allowed me to transcribe the passage. It is in Dr. Clarke's *Demonstration*, &c.  
part 2. p. 300. edit. 4. and p. 221. edit. 6. *All things that are done in the world (says he) are  
done either immediately by God himself, or by created intelligent Beings : matter being evidently not at  
all capable of any laws or powers whatsoever, any more than it is capable of intelligence ; excepting  
only this one negative power, that every part of it will always and necessarily continue in that state,  
whether of rest or motion, wherein it at present is. So that all those things which we commonly say  
are the effects of the natural powers of matter, and laws of motion ; of gravitation, attraction, or  
the like ; are indeed (if we will speak strictly and properly) the effects of God's acting upon matter  
continually and every moment, either immediately by himself, or mediately by some created intelligent  
Being : (which observation, by the by, furnishes us, as has been before noted, with an excellent na-  
tural demonstration of Providence.) Consequently [pray let the following words be marked] there is  
no such thing, as what men commonly call the course of nature, or the power of nature. The course of  
nature, truly and properly speaking, is nothing else but the will of God, producing certain effects in a  
continued, regular, constant, and uniform manner : which course or manner of acting, being in every  
moment perfectly arbitrary, is as easy to be altered at any time, as to be preserved.*

finis

finess of the world! The admirable mechanism discovered in the structure of a plant or animal, is not only the effect of his wisdom and skill in the first contrivance, but the minutest office in the œconomy is *incessantly performed* by his almighty finger. His power is still working *near us, round us, within us, in every part of us.* And this we may be assured of, if demonstration is to be relied on. In those frightful things, *storms and tempests*, those which look likest the want of government in the world, *earthquakes and volcano's*; this truth lets us see the God of nature, wisely, knowingly, for the best purposes, *pushing, ordering* every particle and every atom. Wisdom and knowledge preside even there; and all will be well. He hath not given the reins of the world out of his hands; nor planted the laws by which it is to be governed, in brute-matter. To say he hath lodged in matter, certain powers, whereby events are to be directed, is but one degree removed from Epicurean necessity (1); and to say he still superintends the execution of these powers himself, though it is more pious, is scarce better philosophy; for besides the impossibility of planting powers in matter inconsistent with the nature and essence of it, a Being, who by the excellency of his nature, is necessarily every where present, all-knowing and almighty, doth not want to be relieved of a part of the task. Such philosophy suits only *Lucian's deities.*

(1) I here beg leave to cite another passage from the same author. It is part 2. p. 16. edit. 4. and p. 14. edit. 6. Let from the beginning of the paragraph be read; what is to the purpose here follows: *For not to say that, seeing matter is utterly incapable of obeying any laws, the very original laws of motion themselves cannot continue to take place, but by something superior to matter, continually exerting on it a certain force or power according to such certain and determinate laws; 'tis now evident beyond question, that the bodies of all plants and animals, much the most considerable parts of the world, could not possibly have been formed by mere matter, according to any general laws of motion. And not only so; but that most universal principle of gravitation itself, the spring of almost all the great and regular inanimate motions in the world, answering (as I hinted in my former discourse) not at all to the surfaces of bodies, (by which alone they act one upon another) but entirely to their solid content; cannot possibly be the result of any motion originally impressed on matter, but must of necessity be caused by something which penetrates the very solid substance of all bodies, and continually puts forth in them a force, or power entirely different from that by which matter acts on matter. Which is, by the way, an evident demonstration, not only of the world's being made originally by a supreme intelligent Cause; but moreover, that it depends every moment on some superior Being, for the preservation of its frame; and that all the great motions in it are caused by some immaterial Power, not having originally impressed a certain quantity of motion upon matter, but perpetually and actually exerting itself every moment in every part of the world.*



VI. This point of a constant impression made upon matter *ab extra* is wonderfully plain, if we consider the motion of the earth and planets. These prodigious masses of matter simply propelled, though that alone requires some *almighty Mover*, would move on for ever through the endless regions of space, in one uniform direction; since by N° 11. of the last they as much resist a change of the direction, as of the quantity of their motion, these two being really inseparable. But rolling round as they do, they are continually turned in from this direction, and a new one is impressed upon them every instant; or the resistance they make to change their direction is overcome incessantly. It would not be enough to overcome it in any one instant, since they would immediately cease to roll round. When a stone is whirled round in one end of a string, the other end of which is held in the hand, it is thus kept changing the direction continually, and not by any tendency in the stone itself; for if left to its own tendency, it flies off in a line touching the curve it describes in that point: it is the action of the string upon it that begets this constant change of direction. Just so, any great body in the heavens, revolving about a central body, would incessantly fly off from its orbit, if the power of the first Mover, answering to the action of the string in this familiar instance, did not keep it in. In circular motion nothing is more certain than *centrifugal* force; that is a tendency to leave the circular motion, and run on in a strait line; and therefore nothing is more certain, than a *centripetal* force in such motion, that is an extraneous power impressed to overcome this tendency, and bring it incessantly back (*m*). If we should say with *Des Cartes*, that a fluid circulating round might overcome the resistance of a revolving planet to change its direction;

(*m*) I cannot help thinking that the ancient sage *Pythagoras*, considering he was no ordinary geometer, and the first author of the *Copernican* system, had this very centrifugal force, and contrary centripetal impulse in view, who, after having asserted God to be τὸν καὶ ψύχους τῶν ὅλων, adds, that he is κύκλων ἀπάντων κίνησις, the motion, or mover of all circles. Indeed a circular motion is (if I may be allowed such an expression) a circle of wonders. But I must quote this whole passage of *Pythagoras*, as I find it cited before his *aurea carmina*. Ὁ μὲν Θεὸς ὢς, (says he) αὐτὸς δὲ ἐξ ὧς τινος ὑπονοῦται ἐκτὸς τῆς διακοσμήσεως, ἀλλ' ἐν αὐτῷ ὅλος ἐν ὅλῳ τῷ, κύκλῳ ἐπισκοπῶν πᾶσαι τὰς γενεάς ἐκ κινήσεως ἰδὼν τῶν ὅλων αἰῶνας, καὶ ἐργάτας τῶν αὐτοῦ δυνάμειν καὶ ἐργῶν ἀρχὰς πάντων· ἐν ἑνὶ ἐνὶ Φυσῇ καὶ πάντων πατὴρ, τοῦ καὶ ψύχους κ. τ. λ. What means this ἐργάτας τῶν αὐτοῦ δυνάμειν καὶ ἐργῶν? What I then assert through this whole section is no new notion, if *Pythagoras* asserts that God himself is the exerter of all his own power; which I think these words import.

besides

besides the other inconsistencies in such a supposition (*n*), it is observable that this but multiplies the necessity of the action of the first Being, out of an unwillingness to admit it. For that centripetal impulse, which is necessary to be given to the revolving body in every point of its orbit, must be supposed to be given here to every part of this fluid, in every point of its revolution; since it is supposed a fluid, and not a continuous, solid mass. The evasion contrived for this, *viz.* an universal Plenum, whereby the extreme parts of any vortex are kept in by the confines of the neighbouring vortices, hath been shewn to be false, N<sup>o</sup> 2. of this. And allowing it were true, the motion consumed by attrition at the extremes, ought to be renewed at the center by the power of the same Being (*o*). There is also this particular that merits our attention in the motion of these great bodies, that it is this centripetal impulse that keeps the projectile force constantly in vigour; for between every last centripetal impulse, and last projectile force, a new projectile tendency is generated. If it were otherwise, that is, if the direction were changed in every part of the orbit, and no new centripetal force impressed, to help to generate a new tendency along the tangent; which, I think, implies no contradiction to be supposed (*p*); no body could perform above half a revolution, let the first projectile force impressed be as great as it can be supposed: for it is contradictory to suppose that one individual impulse should make it move in two opposite directions; as it ought to do at the two extremities of the same diameter of its curve. Therefore in this motion, thus considered, there is a constant impairing of the former quantity of motion, by the constant change of direction; and as constant a reparation of it, by the new centripetal impulses, still generating a new projectile tendency.

(*n*) See what Dr. *Pemberton* says of this, in his *View*, &c. b. 2. ch. 1. sect. 2.

(*o*) In the same place he says, "There is another remark made upon this motion by our author; which is, that some vivifying force would be continually necessary at the center of the motion."

(*p*) If a firm unelastic obstacle change the direction of a moving body, also unelastic, no new force will be impressed on it: and if we should suppose this done constantly, for half a revolution, it will come up to the case here expressed. For, as was said in N<sup>o</sup> 11. sect. 1. whatever changes the direction of a body in motion without adding a new force to it, takes off one of the compounding forces. And we cannot conceive in one single impulse any part of the compounding force to be in quite an opposite direction; especially since compounding forces begin to oppose each other, when the angle formed by the lines of their directions becomes obtuse.

VII. Let us next consider the cohesion of matter, and we shall find that *rest* demonstrates more palpably, if possible, the immediate power of God impressed on it, than *motion* doth; and that upon all the parts, to such a minuteness as our thoughts can never pursue, and to an universality, that admits of no exception, but by a contradiction. All the ways that men have attempted to account for this mechanically, and without interesting the immediate power of God, have been no better than a supposing the thing to be accounted for. Thus when it is said, that this is the effect of some superincumbent or surrounding fluid, that binds, and keeps together the parts of matter; this cannot be true of all the parts of matter. The question recurs, what is the cause of the cohesion of the parts of this fluid? Any part of it must be considered as consisting of yet other parts: if the cohesion of these parts is not accounted for, but supposed; and then these supposed to be the cause of the cohesion of other parts of matter, nothing at all is accounted for (*q*). Besides, a surrounding fluid could not cause the parts of other matter to stick together, and make up a solid substance, but by pressure on them, gravitation towards them, or being attracted by them: but we have seen that these are the im-

(*q*) And this is no less true in other respects than that of cohesion. To account for the gravity of bodies by a vibrating elastic medium, is to account for one power of matter by another unaccounted for power of it, whence of consequence neither is accounted for. When we are searching for a motive power in nature, and these vibrations are supposed, it amounts to little more than supposing motion in matter to account for motion in matter. Or when this elasticity is made to consist in the mutual repulse of the particles of this medium; it is as if we should say some parts of matter are impelled to each other, because other parts recede from each other. This says nothing to the origin of motive power. It is true, when the immediate material impulse that produces such or such an effect, can be fairly proved, it is so much advancement in philosophy; but it does not much towards the solution of this question, whether all is material impulse; or whether there is an immaterial Mover at the head of nature? If some great philosopher should tell one, who wanted assistance in the solution of this question, that he could assign a mechanical cause of such a power of matter, and the mechanical cause of that cause, and another of that, and so on for ten or a hundred steps; but for want of the next mechanical cause above the last, he could go no farther; his scholar would be just where he was. Can we ever come to the knowledge of the first immechanical cause, but by the knowledge of still another mechanical one? Then the search is supposed endless. Where would we turn next, if we could give the mechanical cause of gravity? — To search the mechanical cause of that cause? At last, because our faculties cannot go higher, we must leave the whole in doubt. *It is easy here to mistake the end of our enquiries, and to think ourselves disappointed in finding what we first set out in search of; to wit, The first and immechanical cause.*



pulses of an immaterial Agent, and no powers inherent in matter. The hypothesis of hamuli or branchings, that keep together the parts of bodies, by being entangled and implicated into one another, is liable to equal difficulty; for still it remains to be explained what makes the parts of these hooks so firmly cohere.

VIII. But we may be satisfied from the reasoning above, that this cohesion is the effect of the constant action of the Author of matter upon it. For matter considered simply in itself, can only resist a change of its state of rest, in proportion to its quantity, and is incapable of any greater degree of resistance, without some external action to keep it in that state. 2 A will make a double resistance, and 3 A a triple resistance, to be moved with the same celerity, as once A. It is contradictory to imagine it can make more resistance. For, let us suppose as much force applied to it as would overcome this resistance to be moved with a certain degree of celerity; and if we suppose it yet to resist more, since there is not an equilibrium between the two forces, we suppose it to move of itself the contrary way, by this excess of resistance; that is, not to resist, but effect a change of its state. Now, since this is all that matter, as matter, can do, it follows that where-ever there were force enough applied, to overcome the resistance of any part of a body, as of a rod of iron, *v. g.* to be moved with a certain celerity, it ought to be detached from the rest of the body, and be moved with that celerity: and yet we see the parts of this rod will resist a vastly greater force, before they can be separated, than would move the whole with a considerable velocity. Therefore this must be the effect of an immaterial impulse, the force of which is equal to the difference between the resistance the parts of the body actually make against being separated, and the resistance these parts would make by their *vis inertiae*, to be simply moved, if they were separated. And it is to be observed in this argument, that any finite force will move any assigned body with some velocity; for in the shock of unelastick bodies, the velocity of both after the congress, is to the velocity of the impinging body before, as the impinging body is to the sum of both bodies: wherefore as long as the impinging body bears any ratio to the quiescent one, the velocity after the impact will always be something. From this we may be helped to estimate, or conceive, how many thousand, nay millions of times, the resistance of matter is greater from this external impulse of cohesion, than from its own natural inactivity: and that

not only in hard bodies, but in the elements or constituent parts of all bodies; as will appear as we go on.

IX. This impulse, or mutual attraction, for it is the same thing which we name it, since we must conceive it external to matter (\*) is called by philosophers the attraction of cohesion, in distinction to the attraction of gravitation: and it is the cause that in different degrees of propinquity and contact, the parts of matter cleave together with such different degrees of force, as to constitute all the different degrees of solidity and compactness, of fluidity and brittleness, observable in bodies (s).

X. This attractive power must be conceived to be between all the possible parts of bodies. Where-ever it did not obtain, there a separation could be easily effected; and a force impressed on any part of a body (steel, v. g.) would carry that part along only. When the parts of a body are divided as much as can be, by any external force applied, it shews that the parts yet undivided cohere more strongly; otherwise the division should begin there first. It is the easy separation of the parts of a certain bulk only, that makes a body, soft, fluid, friable. If there were not a stronger cohesion between the particles which compose these parts, we can hardly imagine what would be the consequence. Water is not compressible: this is not because of its density, or want of vacuities, (mercury is fourteen times denser) but because of the firmness of its constituent parts, or unyieldingness to change their figure. So strong is the cohesion of these little corpuscles! Abstracting from this, it might be crowded up into one fourteenth part of

(r) *s'Gravesande*, speaking of this very attraction of cohesion, defines it thus: *Per vocem attractionis intelligo vim quamcunque quâ duo corpora ad se invicem tendunt; licet forte illud per impulsus fiat.* Cap. 5. de cohesione partium. Def. 4.

(s) Mr. *Worster*, in his account of the principles of natural philosophy, after he hath pretty largely treated of the attraction of cohesion, adds, p. 22. *Having proved the reality of this attraction, it is no difficult matter to shew farther, that such a power is sufficient to explain how the parts of bodies may stick together with as many different degrees of cohesion as have been observed in nature. Therefore by the first philosophical rule, this attraction ought to be esteemed the true cause of cohesion of parts; and for that reason it is called the attraction of cohesion. Particles of matter whose weight is greater than their attraction, can produce only an incoherent mass like a heap of sand. Particles of matter whose attraction is but very little greater than their weight, shall constitute a fluid. Particles of matter whose attraction is very much greater than their weight, shall form a compact and solid body. If the attraction exceeds the weight in a moderate degree, they will compose a soft body.*

its present bulk, and not be denser than mercury; or one nineteenth part of it, and not be denser than gold. The less the particles of matter are, the less force it would require to overcome their *vis inertia*, if there were no other principle, or extraneous power that acted; and the more easily the parts of these might be separated: and yet the farther down the division goes, it shews but the greater firmness of these lesser parts, since they are last in yielding. This is contradictory to there being no force but the force of inactivity exerted in them. Whence this remarkable property of matter appears, That the force of cohesion (that is of an extraneous power to keep the parts of the smallest corpuscles in their relative state of rest among themselves, by N<sup>o</sup> 8. of this section) is greatest, where the force of inactivity to remain in that state is least. Every man is intreated to consider this at leisure with himself, and to draw that consequence from it which it will bear. To me it appears an irrefragable instance of Almighty Power. And yet, it is necessary it should be so; the consistency of natural bodies requires it. All the bodies we are concerned with in architecture, agriculture, &c. nay our own bodies not excepted, would be like sand, dust, or rather infinitely fluid things, if the parts of them yielded to that force, which would simply overcome their inactivity. And after all the divisions that are performed in the constituent parts of bodies, that are wrought either by the operations of art, or the changes they undergo in nature, we are necessitated to conclude, that the last and least parts cohere most strongly; otherwise they would have yielded to that force that overcame the rest. Nor can we conceive how in any of the operations of nature or art, every the least particle of matter can be separated from every other part. Such last parts should be unextended. *Lucretius* was so much aware of the necessity of the strongest cohesion in the least parts of matter, that he says (*rightly I think*) if it were otherwise, a touch would dissolve all body; every force [*vis quæque*]: and therefore he makes his atoms infrangible by any power (*t*) in which last he is wrong; for certainly the power

(*t*) *Denique res omnes eadem vis, causaque volgo  
Conscieret, nisi materies æterna teneret  
Inter se nexas minus aut magis endopedið.  
Tactus enim levis satis esset causa profecto:  
Quippe ubi nulla forent æterno corpore, eorum  
Contextum, vis deberet dissolvere quæque.  
At nunc inter se quia nexus principiorum  
Dissimiles constant, æternæque materies est,*



power that binds them together can dissolve them; for he was not equally aware of the contradiction in supposing, *that a part of a thing could make an insuperable struggle not to change its state, when the whole thing can make but an indefinitely small resistance to change its state.*

XI. Now since there must be a cohesion between every possible part of matter (*u*); the very conception of solidity implying cohesion in it (*v*); and cohesion implying extraneous impulse (N<sup>o</sup> 8). This is that consideration that spreads the incessant action of the God of nature through the whole system; *to a minuteness, as was said, that our thoughts can never pursue; and to an universality, that admits of no exception but by a contradiction.* In the out-lying regions of the Universe, at the center of the earth, no where not, the immediate action of God binds together the parts of matter, and constitutes solidity. Indeed it is amazing to think of it; one durst hardly venture to affirm it, if the force of reason did not support the assertion. But it agrees well to be the work of an infinitely powerful and perfect Being; and philosophy assures us it is his work (*x*); though

we

*Incolumi remanent res. corpore, dum satis acris.*

*Vis obeat pro texturâ cujusque reperta.*

l. i. ver. 239. see also from ver. 566 to ver. 636.

(*u*) Dr. Gravesande, (*loc. citat.*) Cohæsonis lex peculiaris est, omnes particulas vi attractivâ gaudere. N<sup>o</sup> 31.

(*v*) *Idem. ibid.* Hæc omnia [hardness, softness, fluidity, to wit, in the three former definitions] a cohæsione partium pendent; quod arduior est, eo magis ad perfectam duritiem corpus accedit. Durities verò particularum minimarum ab illarum soliditate non differt, & est proprietas essentialis corporis, quæ non magis explicanda est, quàm quare corpus sit extensum, & mens cogitet.

(*x*) Mr. Worcester above mentioned, speaking of attraction and repulsion, says, *Nor is the cause of these active principles altogether occult and unknown; for though perhaps it may be difficult to determine how far some of these principles may depend on any of the rest, or whether all of them do not flow from some other more general principle, as yet undiscovered; yet this is most certain, that either these active principles themselves, or at least that more general One, from whence they result; is altogether immechanical and independent from matter, and can only proceed from the first Cause and Author of all things.* p. 9 and 10. This is very plain and express, and advances the conclusion here established, as far as it is in N<sup>o</sup> 18 of the last section.

Concerning this argument drawn from the cohesion of matter for an immaterial power exerted on it, it hath been observed, *That Mr. Bernouilli of late has been so far from allowing that the least particles of fluids, or of solids, are perfectly hard, that he affirms the existence of such particles are impossible.* Some will think these things ought to be more agreed to amongst philosophers, before they can be held as so strong proofs of natural theology, &c. But with submission, if the parts of any body cohere together by a stronger force than what would serve to move the whole body with

we generally use that expression of course, without considering what must be the necessary import of it.

XII. Having

a considerable velocity: that is, if the resistance from cohesion is many thousand times greater than their simple *vis inertiae*; and if the *vis inertiae* is the only power that can be inherent in them; all that I assert for an immaterial cause of cohesion, follows, I humbly conceive, *demonstratively*. And this appearance is too plain to be denied: a man can throw a pebble, a piece of wood, the rod of iron I mentioned, a great way; but he can scarce, by any effort, break the cohesion of their least parts. If there be such things as hard bodies, their parts must be hard: for this is no more than to say, that if there be such things as firmly cohering systems of matter, the firm cohesion must be *between all their possible parts*. If it were only between the larger parts, but not between the parts of these parts, the division would begin there. If the cohesion were supposed to be only between particles of the ten thousandth part of an inch diameter, but not the internal parts of these; then we must suppose the whole strength of it to be in the surfaces of these particles, and that between the least parts of these. So that still we must lodge the whole force of cohesion, and the firmness of the hardest bodies *in some least parts*, whose resistance therefore must be millions of times greater than what could arise from their simple inactivity. And from this again, that remarkable property of matter will follow, which I insist upon, *That its resistance to change its state of rest, from an extraneous impulse, is greatest, where the force of inactivity to remain in that state is the least*. And this I think still is such a firm principle of natural theology, that it shows the power of God to be immediately and incessantly exerted every where, where there is solid substance: since, as Dr. *s'Gravesande* says, the hardness of the least particles doth not differ from their solidity, and is an essential property of body. Perhaps there may be an equivocation in the expression (*perfectly hard*) By that cannot be meant such a degree of hardness as no force can overcome. The force that binds the particles of matter together may dissolve them: unless we would say with *Lucretius*, that no force ever bound them together, which the reason just now mentioned shows to be false. But if by *perfectly hard* is understood such a degree of cohesion, as no power of man overcome, (which I suppose is Dr. *s'Gravesande's* acceptation of the term) the parts of bodies are thus hard. If, in any assigned parcel, we could separate all the parts from each other, what would the effect be? We could then destroy the solidity of matter. By what I say concerning the incompressibility of water, the very parts of fluids must be allowed to have a great degree of unyieldingness, that is hardness. When fluids are congealed, it seems there is only a greater degree of cohesion effected between their little solid parts, that were loose before. Sir *Is. Newton* says, *All bodies seem to be composed of hard particles; for otherwise fluids would not congeal: as water, oils, vinegar, and spirit or oil of vitriol do by freezing; mercury by fumes of lead, &c.* Opt. p. 364. How can any man account for the hardness or cohesion of natural bodies, or even of congealed liquors, but by the hardness or cohesion of their least parts? If every least part were easily separable from every other part, all natural bodies would be infinitely fluid things, though the parts still remained in contact: and every touch would render them discontinuous. *Tactus enim lethi satis esset causa profecto*. This makes me say, *The consistency of all bodies, our own not excepted, depends upon this constant impulse of cohesion from the first Cause*. If there were no degree at all of hardness in bodies, this infinite fluidity would obtain: and to say there are no bodies relatively hard, with respect to our strength, is to say there are no such bodies as iron, brass, stone; or none harder than the parts of our flesh: for if there be such, they will

XII. Having endeavoured, in as few words as the thing would admit of, to set in a just light the incessant influence of this Being on the material world in

will be relatively hard to us. Nay, if no second agent can separate every least part of matter from every other least part, so as to make it cease to be solid substance; we must say, that those least and inseparable parts are *perfectly hard*; since *perfect or absolute hardness* must be understood with respect to the greatest created power. Hard, or difficultly separable parts with respect to infinite power, is absurd. Thus let us *bunt* and *trace* hardness, either relative or absolute, through all the recesses of matter, we shall always find it lodged in the *last* and *least* parts.

And here if we should consider a little what would happen, if we supposed this impulse of cohesion between the parts of particular bodies suspended; it would appear with fewer words than were used before N<sup>o</sup> 25. of the last section concerning gravity, that the thus keeping fast bound the several particular substances, on which our life and support depend, no less manifests the goodness, the wisdom, and the wonderful power of God, than the cementing together the great parts of his works by gravitation, by which we are preserved in another respect. *On the one hand*, bodies wanted to be moved. Without motion the world would have been an infinite wilderness. A projectile force is given. This motion would have been in straight lines, unless a centripetal impulse had been every minute impressed. This is constantly supplied. Numberless other species of motions for the growth of animals, vegetables, were required. These are furnished; the various, proper impulses duly made. *But on the other hand*, the parts of the great bodies, and of particular substances, wanted to be variously, strongly bound up in their relative state of rest among themselves. They could have otherwise undergone *no motion, no force*. Resistance implies solidity, solidity cohesion, cohesion impulse: otherwise we might as well speak of the oeconomy of a heap of sand, as of an animal body; of the revolution of a cloud of Epicurus's atoms, as of a planet. *This impulse of cohesion then, the ground-work of beauty, order, motion, action, is made variously, minutely, incessantly, universally; or in all times, places, different degrees, and according to different exigencies.* Doth not rest as well as motion therefore demonstrate the Creator's amazing, adorable power, presence, goodness! May we not cry out,

*Sic, Pater, in cunctis didis te, commodus usus?*

Is this speculation unpleasant to the rational nature? or, not founded in reason?

As to what is said of *the agreement of philosophers*; have not some denied any such thing as motion in the universe? some made us mere machines; some denied the existence of all immaterial substance; and some again the possibility of the existence of matter itself. I verily believe they have left nothing undenied that can be a proof of natural theology. Must we wait till they agree, to determine whether we have any material or immaterial substance in us; or perhaps neither of them? Or is it better to let all things remain in sceptical suspense? If this be a reason for doing so now, it will never cease to be one. It is really a better method to follow truth wherever we find it, without regard to names; paying great men that respect which their noble, industrious discoveries justly challenge; yet without sticking close to some weaknesses perhaps, which are inseparable from human nature; or setting *one* great name against *another*.

Sir *Is. Newton's* thoughts on this subject of cohesion are both pious and philosophical. *All these things being considered, (says he) it seems probable to me, that God in the beginning formed matter in solid, massy, hard, impenetrable, moveable particles, of such sizes and figures, and with such other properties, and in such proportion to space, as most conduced to the end for which he formed them; and that these*



in general; let us next (still in consequence of the same principle established, N<sup>o</sup> 14 and 15 of sect. 1.) consider our own bodies, first in their mechanical, and then in their spontaneous motions: for albeit in N<sup>o</sup> 5. of this section these last were only excepted, as not immediately produced by the power of God, yet we shall find this exception so qualified that his immediate efficiency is as much concerned in these, and as necessary, as in any other motion whatsoever. In effect, we do little more but *will* the production of the motion; and in strict propriety of speech, he is not only the *first*, but the *sole Mover*. *Animal life, consists in a circulation of fluids, where matter, originally impelled by some power, ab extra, acts on matter with a certain determined force or moment, which arises solely from a resistance to a change of its state, (N<sup>o</sup> 19. sect. 1.) and whatever matter were void of that resistance would be of no use in the mechanism of an animal body.* For as, on that supposition, it would have been absurd to have enquired for a *Mover*, since matter making

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*these primitive particles being solids, are incomparably harder than any porous bodies compounded of them; even so very hard, as never to wear or break in pieces: no ordinary power being able to divide what God himself made one in the first creation. While the particles continue entire, they may compose bodies of one and the same nature and texture in all ages: but should they wear away, or break in pieces, the nature of things depending on them would be changed. Water and earth composed of old worn particles, and fragments of particles, would not be of the same nature and texture now, with water and earth composed of entire particles in the beginning, &c.* Now even this way of expressing the origin of cohesion is consistent enough with what has been said above: for, saying that God created at first each of these primitive particles *one and solid*, so as to be infrangible by any second cause, doth not weaken the demonstrative evidence they afford us, that an immaterial Power incessantly acts in making them cohere, or preserving each of them *one and entire*. For still they are solid matter, consisting of parts whose cohesion wants to be accounted for, (here they are supposed liable to *wearing and breaking*) and it cannot be accounted for in any other manner. And as to their being each of them *one*, and *originally undivided*, lodges no virtue or power in themselves to remain so; since Almighty Power might have formed particles of any bulk (millions of times bigger than they) that should have been *originally one and undivided*; where the denominations of *unity* and *undividedness* could never have superseded the efficacy and power that hindered their actual division, in undergoing any force, or making any resistance, that was greater than their simple *vis inertiae*. So infinite power might preserve a *stone*, a *mountain*, the whole *earth*, *one and undivided*, which would only shew the effect of this cohesive force the more. The subjoining, *But should they wear, or break in pieces, the nature of things depending on them would be changed*, seems the same as if it were said, *But should God suspend this immaterial impulse which makes their parts stick together, the nature of things depending upon their being preserved as they are, would be changed.* And indeed this is very certain; for, as from this account we may see the power of God constantly *working* (to use such a familiar word) *here, there*, at the very *centers* of bodies, and through their whole solid substance, throughout all parts of the wide extended universe; giving particular bodies their various impulses, according to their different specific natures: so we may easily see, that should he suspend this impulse, the foundations of nature would be instantly loosed. Things would be no more what they

no resistance to motion, no power or force (that is, the power or force of no being) was necessary to be bestowed on moving it; so it would have been equally absurd to enquire for the effect of such a motion. Had there been but the least particle of resisting matter in a system of such unresisting substance, in a vegetable or animal body, the motion of the whole must have been stopped on coming to contact with that atom. And as certain as it is, that some matter in our bodies is resisting matter, so certain is it, that any quantity of unresisting matter (not to repeat again the contradiction that there is in supposing such a thing possible) would have been to no purpose, or effect. In short, as was said before, I do not think there ever was stronger evidence for any thing, than that matter must resist: the contrary is not only impossible, but allowing it certain, it is of no imaginable use, either in the works of art or nature. For just as working in stone, wood, iron, or any other material, would have been impossible, since the

they are. *Death and horrible confusion* would immediately succeed, where now *life, beauty and order* are seen. How many ways doth philosophy shew us depending upon him! How quickly could he spread a face of desolation over the universe; obliterate, sink it quite!

Let me here observe from this Author, another argument for an immaterial Mover in the operations of nature, which hath a great affinity with this of the cohesion of matter. He hath from hundreds of instances, I believe, for twenty or thirty pages together (see from p. 350. of his *Opticks*) shewn that in chymical experiments the effect is produced, and all the force exerted by the least particles of bodies. Now *that a greater degree of attraction, of repulsion, or a greater effect of any kind, should be exerted by a small atom, than by a much larger body, shews us that this power cannot be lodged in it, but is exhibited by another Agent, by means of it.* For if it were the only immediate cause, its power, resistance, or force of any kind, could only be in proportion to its quantity. And this is directly against being a mechanical effect in another respect; for, as I have observed above, *a small atom can never afford so much scope for other matter to act upon it, as a larger one.* But with submissive respect, and only for the sake of truth, let it be allowed me to oppose the supposition, with which this long detail is introduced. *Have not (says he) the small particles of bodies certain powers, virtues, or forces, by which they act at a distance, not only upon the rays of light, for reflecting, refracting, and inflecting them, but also upon one another, for producing a great part of the phenomena of nature? For it is well known that bodies act one upon another by the attractions of gravitation, magnetism and electricity; and these instances shew the tenor and course of nature, and make it not improbable but that there may be more attractive powers than these, &c.* Nothing can act where it is not: nor therefore matter beyond its terminating surface. Virtue, power, force, cannot be without a subject; nor communicated from the terminating surface of one particle to that of another without a subject. Spheres of activity are material impulse, immaterial power exerted, or nothing: If material impulse; the impelling matter acts, not any distant particle. He adds, *these attractions may be performed by impulse, or some other means unknown.* But if it is not by material impulse, where resisting matter (or matter moved *ab extra*) acts on resisting matter, it must be by immaterial power exerted; since material attraction, that is matter acting at a distance, is repugnant to reason.

axe would have had *no force* to cut the tree, nor the iron to shape and work the stone; so in the mechanism of the animal body, a mountain of such matter would not have moved one resisting atom.

XIII. Before we go farther, we may from this observe the ignorance, or the disingenuity of sceptical people. For it is remarkable that that *very mechanism* in the human body, which they contend is the cause of spontaneous motion in it, or all that is called a soul in it, *shews to satisfaction, not only that itself is not this cause, but that it is contradictory that matter, or any quality or power, matter can be endued with, can be such a cause, as long as the body is capable of this mechanism*; that is, as long as the matter in it is such as resists a change of its state, which is the very foundation of mechanism (as shall be observed immediately); and that is again, *as long as it is matter*. There can be no notion more unphilosophical, than to think that a machine can be made of such matter as doth not resist a change of its state; or if it doth, to think that of itself it should effect a change of it. The pretence hitherto hath been, that we do not know all the powers and qualities of matter: but those who would seek a refuge from conviction by this, may please to observe, that although we know not all the powers of matter, yet we know certainly that it cannot have *inconsistent* and *contradictory* powers; and that, since the exciting motion in itself depends on this, we are as certain that it is not self-moving, as if we knew every thing belonging to it. Nor yet must we forget what was observed from Dr. Clarke above, that matter is only capable of one negative power, *viz. That every part of it will always and necessarily remain in the state of rest or motion, wherein it at present is.*

XIV. This will help us to determine what is properly to be understood by mechanical motion, by a machine and mechanism, according to the conclusion N° 26. of the last section; which is necessary to be done, in order to shew how the divine power produces mechanical motion in our bodies. *By mechanical motion can only be meant motion excited in matter, by other matter in motion, by means of the necessary resistance it makes to be brought to rest.* Nothing else can be meant by it without a contradiction; for a particle of matter, that necessarily resists a change of its state of motion, cannot produce a change in another particle, that as necessarily resists a change of its state of rest; unless it be by a tendency not to change its own state of motion; that is, by resistance to be brought to rest, or by *moment* in its motion. A particle of matter that can be endued

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with



with no power to change its own state, can yet be less endued with power to change the state of another particle; for it must act upon it, to overcome its resistance; that is, first change its own state, which is contradictory; and it could not act otherwise, than by coming to contact, that is, by motion, without being supposed to act where it is not, which is contradictory still; (see the Note (p) N<sup>o</sup> 22. sect. 1.) What is said here of one particle, is applicable to any number of particles acting mechanically. Any number could only encounter, interfere, impel, as two would do. And then let it be remember'd what hath been sufficiently shewn, N<sup>o</sup> 11. sect. 1. and N<sup>o</sup> 3. of this, that the action of matter upon matter, or of these particles among themselves, can never increase motion, but, must necessarily impair it, if their directions are oblique to each other, or interfere ever so little; (see concerning the encounter of elastic particles the Note at N<sup>o</sup> 3. of this section) and therefore that the whole quantity of motion can never be kept up, among any sort of particles, unless where all the directions conspire, and are never changed, which is never the case in mechanical motion. From this consideration, the following important consequence, in this kind of motion, is plain. *That a power is not only necessary to impress the motion at first; but that it must act incessantly, to keep it up to one constant pitch.* The force or energy of every single impulse of this cause *ab extra*, is extinguished in whole, or in part, by the action and re-action of the moving particles of the system; the last always consuming the first, as well as being equal to it: so that the motion would soon cease altogether, without the indefinient action of the original power. Our experience in machines contrived by the art of man, confirms this. It would be absurd to think that *one single* impulse of the spring of a watch could keep it going for any time after. The weight must *constantly* act on the clock. The natural power of gravitation consists in *repeated successive impulses*.

XV. By a machine can only properly be meant *a system of matter so disposed, that the fixed or immoveable parts of it may direct the motion impressed (by the power) on the moveable parts, that it may be by them communicated, to the weight, or thing designed to be moved; and that by the apt and proper figures of both kinds of parts, and their right position with respect to each other.* That it should do more than regulate and direct the moveable parts is still contradictory; for it is the same contradiction here, as before, that the fixed parts of it should excite motion in, or increase

crease the motion of the moveable parts, impressed upon them by the power; and there is no other way conceivable how it should conduce towards moving the weight, but by the right application of the original force communicated by the *power*; that is, *by regulating the moveable parts*, as has been said. Some machines are so simple, that they are rather to be called *instruments*; and we do not conceive that these multiply or produce motion; but when they become perplexed and complicated, we think it not impossible; or rather we generally suppose it true. However this reason, which is universal, as being drawn from the nature of matter, shews it is our prejudice and inattention. It is true, a *compend* is necessarily studied by us, and always effected in the most useful machines; but this is not by their *multiplying*, or *increasing* the action of the *power*, but by an *artificial application* of it, that as little of it may be lost as can be. We can apply but little power, and therefore must husband it well. Sometimes the *weight* is divided, that but a part of it may affect the *power*, as in some combinations of pulleys; and generally the celerity of it is lessened (of which more by and by); so that what we save in the *power*, we lose in the celerity of the *weight*. But here again, experience confirms this in all machines of human invention; for the force of the *power* must be somewhat greater, even abstracting from friction and cohesion, than the inactivity of the *weight*, in order to move it; which shews that motion is not multiplied (y). If the force of the spring of a watch were but just equal to the friction and inactivity of the parts to be moved by it, there would be an *equilibrium*, and the watch would stand still. That is, the mechanical disposition of the parts, no way conduces to *multiply* the action of the power, but only to *apply* it. The following particular is to be taken notice of carefully in machines, *That the more complicated they are, and the oftener the direction is to be changed* (and in the case of a circulation of particles of matter it is constantly to be changed) *the impressed force must still become the weaker*. This follows from N° 11. sect. 1. and what was said of the motion of the heavenly bodies, N° 6. of this; for if a change of direction weakens the force, a constant change of direction constantly weakens it.

The sceptical account of mechanism, is opposite to this here given in every respect. They suppose a particle may be found in motion, they know not how; but it is without any mover; that motion is not diminish-

(y) It is to be minded here, that force, or moment, is made up both of matter and celerity.

ed, but may be multiplied by the action of particles among themselves; and that there are several inherent, eternal propensities in the particles, to be moved, or rather to move themselves, in certain circumstances. I mark this opposition, that we may bear it in mind. The prejudices of men are generally on the wrong side; but we may readily have recourse to the general principle above, when doubts arise, *viz. That resisting matter cannot move itself, nor unresisting matter any thing else.* This will set us right; for the whole train of reasoning will follow of course.

XVI. From the last two paragraphs we may see that we torment ourselves in vain to find out the mechanical cause of the circulation of the blood, if by a mechanical cause we understand certain powers planted in matter, performing this motion, *without the intervention or efficiency of any cause immaterial*; so that matter with these powers planted in it, of itself continues this motion once begun. This is to endeavour to find out a thing which is not to be found out, because it is not. We saw in N<sup>o</sup> 6. of this, the impossibility of one particle's being carried round in a simple circular motion, without the constant agency of an immaterial Power; but if we apply this to the present case of a circulating fluid, where there is a *congeries* of particles to be carried round, and consider, besides their constant change of direction, the diminution of any impulse impressed, from the action of these particles among themselves, by their *mutual divisions, attrition, contrary and interfering directions*; and add to this *the irregularity and intricacies of the meanders they move in, differing inconceivably from the simplicity of a circular motion*; and lastly, take in the vastly *unequal capacities of these channels, and their endless divisions and branchings*, the impossibility which was shewn in the other case, is infinitely multiplied in this. We saw also just now (N<sup>o</sup> 14. of this) the necessity of the indefinient action of the *power* upon the *weight*, in any simple machine; but here there is an equal necessity for the indefinient action of an infinity of powers (so to speak): it is not in any one particle, under the same constant circumstances, that the same quantity of motion is to be kept up, as in machines that we know; but in every part of this inconceivably complicated piece of mechanism, under an endless variety of circumstances, where the *power* is to be applied in still a different manner, so that we must conceive them as different powers, and where a difference of the quantity of motion in the same particle, is as necessary to the end proposed, and this difference still to be in number and proportion, as



motion at all is necessary (z). If this were to be performed by the agency of finite immaterial Beings, we cannot conceive but that great numbers of them should be constantly busied in maintaining the circulation in one individual animal, considering the variety of the work to be done, by different means, in all the different parts of the body, and all to be carried on at the same time. The *fin* of a fish, or the *toe* of a frog, or *but a part* of these, would afford too much employment for a creature that can have but one thing under consideration at once. What is it to carry it on then, in all animals (and I may add vegetables too) and by a different method and artifice in every species! Let me here observe our unphilosophical prejudices. If one should say, all this is carried on by *nature* at oncè (meaning by *nature* we know not what, some *furd imaginary entity*), no body would except against the account but think it as good as could be given in philosophy; but if he should say, all was imme-

(z) A short view of this various, intricate, busy scene we may have from Borelli, *part. 2. de mot. animal. prop. 30.* after having mentioned two other sorts of motion in the blood, he adds, *Tertius est ille, quo à corde per aortam & reliquas arterias ad omnes corporis partes transfertur diffunditurque intra carniū, viscerum & glandularum spongiosam substantiam; & hinc a subtilissimis venarum canaliculis exugitur, congregaturque in venas majores, non secus ac flumina ex fontibus & aquarum rivulis, & torrentibus in decursu receptis, augentur; quæ omnes venæ, in unum grandem truncum carvæ desinentes, tandem ad cordis dextrum ventriculum exonerentur, & hinc per pulmonarem arteriam moles universa sanguinis, in ipsis pulmonibus diffusa, iterum recolligitur à venâ pulmonariâ, reduciturque ad cordis sinistrum ventriculum, ut iterum intra aortam effundatur.* This is not so much one, as two circulations; the blood being twice thrown out of, and twice returning to the heart, before the full period is compleated. It takes a long journey, it seems, to recruit all the parts of the body, and another shorter journey to make itself fit for that purpose. The heart is the common office and rendezvous, whence it sets out, and whither it returns. What pains (speaking in our manner) doth this work cost? Infinite Power and Wisdom, no doubt, might have made it more compendious; such a cause is fertile in resources, being the master of all possibilities: but art and means are designedly multiplied, that we might not take it for the effect of chance. And again, in some cases the method itself is different, that we might see it is not the effect of *furd necessity*. *I shall stop* (says Mr. Derham, *b. 4. ch. 4. of his Physico-Theology*) *at one prodigious work of nature, and manifest contrivance of the Almighty Creator — and that is the circulation of the blood in the fœtus in the womb, so different from the method thereof after it is born.* See also his note (12) on this place. And generally (nay without exception) in all the works of nature, we can trace the power, the art and design a great way, to convince us what kind of a Being the cause is: but we can never trace any of them to an end; the farther we go, the art, the means, the contrivance, is infinitely multiplied, till we lose sight of it in inexpressible subtilty, to teach us to admire, adore, where we cannot comprehend. What method could be more proper than this to educate rational beings, to train them up to eternity, to kindle the desire of intellectual pleasure in the soul!

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diately performed by the God of nature, we straight fly out against it, as a thing absurd and impossible. *Nature* in our mouths, is, like *chance* or *fate*, a word that stands for our ignorance, or inattention. Is *sluggish matter*, or *surd necessity* likeliest to perform the *difficullest effects* (see the Note (k) N° 5. of this). One would think, we should meet with the greatest opposition, if we offered to pervert philosophy, and teach that *not an intelligent and all-powerful Being*, but a certain thing both void of power and knowledge, did what was most wonderful in the Universe; and yet the contrary happens. Again, no man would allow, that one single body could of itself return to where it set out, after a perplexed and various course, and run the same ten thousand times an end: and yet we allow that a *multitude* of such bodies may perform this effect! We see one single machine requires the constant application of an external power; yet we suppose a vastly complicated one, which proportionally diminishes the force impress'd, may be a Power to itself! But to return; this circulation of the blood is but one, though a principal branch of the animal œconomy; for in the *brain, nerves, stomach, guts, glands*, in every part there is motion, and every particle receives its immediate impulse from the finger of almighty God, if this one point be but certain, That matter is such a substance as resists a change of its state. Shall we yet solicitously enquire *if there be a mighty Governour of the world; or how we may be certain that he hath power or knowledge; or goodness to regard the low estate of man? Or where those magnified effects of his power are? Or is it true that he works constantly near us, round us, within us?*

XVII. Nothing here said is meant as if we should not enquire into the nature and constitution of the animal body, and the methods by which motion is effected in it. It brings unspeakable pleasure to the mind to understand, as far as our faculties will reach, the laws and methods by which infinite wisdom works; it is useful to the relief of our bodies in many cases; and nothing conduces so much to give us right ideas of the power and wisdom of God, as the contemplation of his works, where these perfections appear. But it is meant, *that we ought not to ascribe the operations of his power and wisdom to any cause besides himself, as to certain virtues and activities in matter, which we know not how it got.* This tends to lessen our respect to him, or make us imagine he may be absent, while this vicegerent of his power performs all; till at length we incline to think these activities may be proper and essential to matter; which  
hath

hath been a greater hinderance to our dependance on the Deity, and our regard for him, than any other notion that ever was entertained in the world. When we ascribe any effect in the animal oeconomy to *attraction*, *elasticity*, *fermentation*, *tonic action*, or *peristaltic motion*, we either express the efficiency of the first Cause in terms of art, or assert what amounts to a contradiction. Our error in this case seems to be a fear of *oppressing* and *perplexing* the Deity, with the *multiplicity*, or *diversity* of things to be done; or that these things are *too mean* for him to be concerned in; but philosophy acquaints us better with the nature of an infinitely perfect Being. Or else we are afraid not to be artificial enough in our enquiries, or to make an *occult quality* of the Deity; though it is extremely inartificial not to think that we must find the origin of the action in him at last, proceed as far as we please (a).

XVIII. Thus

(a) I shall here obviate an objection that might be made to this account of the circulation, and generally all motions in the animal oeconomy, as being immediately effected by the power of God. *It may be said, that then we must conceive him to do and undo, act and counter-act to himself: as for instance, if gravity in the blood is his immediate impulse, and also that power (be what it will) whereby it returns in the ascending veins, contrary to the tendency of gravitation, is his impulse likewise, he must be thought to act against himself.* But if this scruple should arise in any one's mind, it is answered, 1. That this is no more an objection against *this account*, than against the *common one*, where some second causes or other, some certain powers planted in matter, are supposed to produce the effect; provided we allow, that it is still by the disposition and contrivance of the same first Cause. To dispose a thing to be so by mediation, and to effect it so immediately, is the same as to the consistency of the method. 2. That cannot be called an inconsistent method to produce an effect, where the effect is unerringly produced. The excess of the one impulse against the other, is precisely such as answers the end. We who have but little power must be frugal of it, to make it reach the effect: but the consequence doth not hold to a Being of infinite power. The necessity that all the parts of our bodies should gravitate to the earth, was shewn, N<sup>o</sup> 15. sect. 1. [Other particular reasons might be added, with respect to the erect posture of man's body; the state of the brain, stomach, guts.] *A general effect*, that cannot admit of being suspended, requires a *general and uninterrupted impulse*; and a *particular exigency* will require a *particular contrary impulse*. This is as it should be. 3. But chiefly, this very objection shews convincingly, what is principally here intended, (and in so far answers itself) *viz. that opposite tendencies must proceed from external action on matter, and can never be made consistent in the same individual substance.* This objection should have been made in respect of many other instances; or rather, these instances should have obliged us long since to own an immaterial Power immediately exerted on matter; for these contrary impulses are extremely plain in a drop of oil between two polished glass plates making a very small angle at their line of contact. The attraction of *gravity*, or that of *cohesion* (or by whatever name it may be called) may be made to prevail, or both may be made equipollent, as the plates are more or less inclined to the horizon. And it is repugnant to say *it can have a tendency of itself to move two contrary ways at once.*



XVIII. Thus much of the cause of motion purely mechanical in our bodies; spontaneous motion is not so easy, and will require more words.

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once. In a thread of ropy liquor suspended, as honey, all the parts are attracted to the earth by gravity; and all the parts are retracted from it by cohesion: for if the drop at the end falls, the whole thread shrinks upward, and is contracted in length. Let any man say, whether every part of this liquid wire can have a power planted in it to fall downward, and an opposite power planted in it to fly upward, at the same time? I shewed before an instance where the two impulses coincide (I think) viz. of marble lying in the stratum; which made me conclude that they proceed both from the same cause; and that if it was absurd to offer a mechanical solution of the one, it must be no less absurd to offer any of the other: but if we suppose the thread of honey at the center of the earth, we may imagine the drop at the end would fall no where, but the whole length would be contracted into a globular form, where the opposite impulses again coincide, and shew (as it appears to me) the unity of the cause, though producing different effects in different circumstances. In this instance the opposite impulses are easily observable; but they are no less real in any solid body whatsoever suspended, a rope of flax, v. g. or a rod of iron: every part tends to the earth, and every part tends to that next above it; else why do they cohere, and not fall? This contrariety of impulses (the symptom, I think, of their being all external impressions) is certain in all bodies most familiar to us. A rock, a house, a tree; nay our own bodies, and those of all other animals; why do they not settle into an horizontal surface, like a fluid? It is because the attraction of cohesion hinders that of gravitation to take place. Without this there would be neither mountain, nor height, nor descent for rivers, nor bank, nor shore, nor vegetable nor animal bodies. The consistency of things therefore depends on this contrariety of impulse on the same individual particles of matter: and a contrariety of impulse on the same individual particles of matter undeniably proceeds from a Cause external to matter.

And here I can't help taking notice of some animadversions that have been made on this account of mechanism, contained in these five last paragraphs, and the necessity contended for, of the constant action of an external power in all mechanical motion. It hath been observed that, when I shew that animals require more than mechanism, I seem here still to require new laws, and that yet some of my arguments are not good, when elasticity, fermentation, rarefaction from heat, &c. are allowed. That it is not right to diminish too far the mechanical part of the contrivance and conduct of the fabrick of the Universe; that if I bring in too many laws and principles actuating and governing the motions in it, it has great disadvantages; and that when a vast number of different laws, often clashing, appear in my scheme, it will revolt some against it. That it must be remembered that the imputing the motions of animals in a great measure to a fine machinery is so far from derogating from the power and wisdom of God, that from hence arises the best demonstration of it. That though the principles of gravity, elasticity, &c. were mechanical themselves, yet the forming and producing such machines from these principles, shews the highest art; and that we are not to lessen an argument, especially one so clear and obvious to the sense of all mankind, for the sake of another that requires fathoming the depths of philosophy, perhaps farther than any man has yet arrived before it can be admitted. Here I cannot help replying in general, that if any, without observing the reasons I give, or excepting against them, will refuse the consequences that follow from them, there is no guarding against such objections. I shew (N<sup>o</sup> 14 and 15. sect. 1.) that if matter necessarily resist a change of its state of rest or motion, it cannot have any power or

virtue

The first thing observable in it is, *that it doth not exclude, but suppose mechanical motion.* The spontaneity consists in setting the mechanism at work :

virtue planted in it, or made inherent in it, as in a subject, to change that state. To be utterly incapable of producing an effect *at all times*, and yet capable of producing the same effect *at some times*, the incapacity still subsisting, is undoubtedly a direct contradiction. And after that, N<sup>o</sup> 26 and 27. I shew that matter, as matter, must necessarily resist all change of the state it is in ; or that the incapacity of effecting a change in itself, is inseparable from it as a solid substance. Not to mention what hath been also shewn, that if we should deny this resistance of matter ; by so doing we allow a contrary incapacity in it, for want of *resistance, force, or moment*, to act on other matter. (See N<sup>o</sup> 22. and the note (p). These particulars being considered, no principle in natural philosophy, I think, is more certain, or better established. Now from this principle follow easily all the several consequences that I have drawn, or shall draw. How can it be said then *that I bring in new laws still ; or multiply principles ; or that a vast number of different laws appear often clashing in my scheme*, as it is called (though it is more justly *Kepler's* scheme, or even before him perhaps *Pythagoras's* ?) Let it be shewn me, how the fair consequences of the same principle can differ, or appear clashing with each other ? It is true, such a fundamental principle cannot take place, without drawing a great many particular consequences after it : but why should this shock any of my readers, as it hath been said before it will do ? This is rather as it should be. If one should discover a new property of some geometrical figure, the consequences of it would never shock a mathematician. This is neither *Kepler's* fault, who first discovered this universal property of matter, (nor perhaps *Pythagoras's* before him) nor *Dr. Clarke's*, who first insisted on these consequences of it : nay let me venture to say, the prejudices of men should rather give way to it, if it be true ; and the commonly received opinions, so far as they are built on these prejudices, should be corrected.

If indeed *elasticity, fermentation, rarefaction from heat, &c.* are allowed in the common sense of them, as powers, to wit, lodged in matter, none of my arguments are good ! But they cannot be allowed in that sense, while the property of inactivity, or the *vis inertiae* remains, *which hath been shewn essential to it as matter.* Having first premised, that spontaneous motion itself doth not exclude, but suppose mechanical motion, as the basis and ground-work of it ; let me observe, that even *Sir Is. Newton* seems inclined to apply the elastic medium, which he supposes the cause of gravity, to solve this appearance of animal motion : which shews that he did not think the motive force was lodged in any matter that belonged to the body, or was exerted by it. His words are, *Is not animal motion performed by the vibrations of this medium, excited in the brain by the power of the will, and propagated from thence through the solid, pellucid, and uniform capillamenta of the nerves into the muscles, for contracting and dilating them ?* (Opt. p. 328.) Thus far then we have his authority for rejecting the powers of matter in this case, as they are commonly understood ; and really in all cases to which he applies the agency of this elastic fluid. He doth not lodge a motive power in the *fine machinery* of the body, but calls in a *foreign Mover*, in subordination at least to the power of the will : but what is to be done in mechanical motions which are independent on the will ? How the particles of this fluid come by their activity or motion, he no where insinuates. Upon which account, I think, the question concerning the *origin of motive power* (the weightiest certainly in natural philosophy) is left still undetermined. Indeed if we consider that we have the same arguments against the activity of the matter of this

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fluid,

work: we are free to excite motion in the hand, or foot, or not to excite it; but we are not free to excite it with, or without the help of mechanism;

fluid, as we have against the activity of any matter; it appears we should reject the active powers of matter universally: for, allowing the existence of such matter, it can itself be but a thing moved, just as a billiard ball is a thing moved, though it moves another ball.

As to what is said, *that it is not right to diminish too far the mechanical part of the contrivance and conduct of the fabrick of the Universe*: I must observe that the mechanical part, so far as regards the nice structure and contrivance of an animal or vegetable body, or the disposition of the material Universe in general, is no way diminished in this account: all the infinitely nice adjustment of one thing or part to another, still remains as it was: all the wise ordering of proper means to attain every end, is as conspicuous after what is advanced here is allowed, as it would be otherwise. Let me ask: Is not the contrivance of the several parts of a watch, in order to shew the hour by the turning of the index, still as artificial and ingenious, though one asserts that the elasticity of the spring is no power planted in dead matter, but a constant impulse *ad extra*; as it would be otherwise? There is certainly no difference, nor any thing to make an alteration; and the cases are just alike. But we would have the motive power itself planted in dead matter; that is, *dead matter to be living matter*, (for such I think it is to be self-moved) to answer our notion of mechanical contrivance. Let us look into any book of anatomy, or natural philosophy, where the skill and knowledge of mechanical contrivance is explained, and we shall not find that the particular instances alledged are intended to shew whence the origin of motion is; or *that a fine machinery may be a power to itself*: but only to shew the wisdom and skill that is manifested in fitting the several parts to comply with such and such motions, their advantageous position, number, structure, strength, with all those other particulars that adapt them to their proper ends. Thus it is observed that the structure of the back-bone is the very best that could have been contrived; if it had been one continued bone, we could not have bended our bodies; if there had been but two or three bones with articulations for motion, the spinal marrow would have been bruised at these angles or joints. Again, it is observed in the joints, that some are *furrowed and ridged*, where the motion is designed to be straight *forward or backward* only; some are like a *ball and socket*, that the motion may be *quaqueversum*; both which artifices human art hath copied. Now in these and all other such instances, doth any thing said here diminish the mechanical part of the contrivance? They have all the same marks of wisdom and design in them whencesoever the motive impulse proceeds. But that it should proceed from the dead parts of matter, or be lodged in them, this I deny. And as it appears in reason the truest account that the motive impulse should proceed from the *first Mover*; so it hath these consequent advantages, that it is the *simplest and plainest* of all other, makes more for the *beauty of the Universe*, the *advancement of natural religion*, the *universality of Providence*, and the *showing the ubiquitous presence of the Deity*, than any other could. Would philosophy be the richer, if it could discover one mechanical cause above another, for a great way, and there stop, without carrying us farther? Let me be forgiven, if I suspect, that these are only the mistaken views we generally propose to ourselves. And if it was designed to lead us to a first Mover at all, can it be so plain and simple to suppose him moving one thing, that moves another thing, and so on, that moves the things we are acquainted with? It is to be observed, that from the action of matter upon matter, the quantity of motion is still decaying in the Universe; and then the more mechanical



of it is intended, as being the part of a machine, it multiplies mechanically, or will co-produce motion, or not, in any part of itself, or any part of it.

Here there is a full enumeration of all the particulars that are infixed upon throughout this whole section; and the mechanism of all the parts of the world, small or great is very plainly supposed insufficient to keep them a going, or afford motive power, without *active principles*, proceed they whence they will. And as to his way of explaining this in the next page, where he says, *It seems to me farther, that these particles have not only a vis inertiae, accompanied with such passive laws of motion as naturally result from that force, but also that they are moved by certain active principles, such as is that of gravity, and that which causes fermentation and the cohesion of bodies.* As to this, I say, if it is meant that these inert particles are endued with such active principles, so as to become the subjects of such inherent activities, I am forced directly to deny it. They must be divested of their inertia, before they can be endued with activity: and if their inertia is inseparable from them, activity will be utterly incompetent to them. An inert, active particle of matter is too open a contradiction to allow of dispute. The *inertness* signifies an inability to change its state of rest or motion: and the *activity* signifies an ability to change that state. But though Sir Is. Newton says, that these particles have not only a *vis inertiae*; yet he doth not say, that they move themselves, but that they are moved by certain *active principles*: and when it is said that a thing is moved, in opposition to saying it moves itself, it must necessarily be understood that it is moved by another thing not itself. Now go as far as we please, to other and other particles of matter, as long as they are allowed to have a *vis inertiae*, these can never be those active principles: which shews all at once whence the power and activity must proceed. With submission, I think it is somewhat improper to speak of the *mechanical cause of active principles*, (see what is said p. 377, about leaving the cause of these principles to be discovered) or the mechanical cause of those principles that conserve and recruit motion in the universe. And if the immaterial cause of them is there meant, we cannot be ignorant whence all power and activity proceeds, as I said above.

or every part of it is full of various machinery, previous to our will, and by the appointment of the *Author* of it; so that, though it depends upon the will to produce motion, or not, in any part of it; yet if any part of it is moved, as being the part of a machine, it must be mechanically. The case is the same as when we would raise a weight by a pulley or lever, or work a pump; it depends upon us to raise the weight, or not, by that means; *but not to raise it without that means.* There only arises this difference, from the simplicity of mechanism of human invention, and the complication of machinery in the body, that to move a part of any other machine, we must generally work the whole; whereas we can move a part of the body without moving or working all the other parts of it. *This was wisely and kindly so instituted by God, to answer the variety of our necessities, and prevent our universal and constant fatigue.* What is here asserted, is plain from this, that though motion is excited in the body by the empire of the will (b); yet more is required to excite

Upon the whole then, to shew the origin of motive power in the Universe, to repair the waste of constantly decaying motion, and preserve life, heat and vegetation, is really the *dignus vindice nodus*, that calls for the intervention of the *first Cause*; since, to account for the natural power of matter from other matter, is not to the purpose, here at least.

As to what is said, *that the imputing the motions of animals in a great measure to a fine machinery, is so far from derogating from the power and wisdom of God, that from hence arises the best demonstration of it*: I answer, the resolving motion into machinery hath been the atheistical and sceptical refuge ever since *Democritus's* and *Epicurus's* days, who allowed of no immaterial substance to be the cause of it; and it is the chief thing they will ever have recourse to, against the arguments for the power and wisdom of God. The fine machinery and contrivance of the parts of the bodies of animals, in order to perform the motions proper to their species, and way of life, is certainly one of the best arguments of the power and wisdom of God: but *that the imputing the motions themselves to this can be any argument for these*, I cannot agree. The direct impossibility of the thing itself is shewn above, N<sup>o</sup> 13. which ought to be remember'd here.

As to the next point, there are demonstrative reasons against the principles of gravity, elasticity, &c. being mechanical themselves, and it would be all shewing the skill of the Deity from such topics. When it is said *that the imputing the motions of animals in a great measure to a fine machinery, is an argument so clear and obvious to the sense of all mankind*; it is certainly mistaken, I think, for the wise structure and excellent disposition of the parts, to comply with all motions for the animal's preservation and life; which is certainly an obvious and clear argument, but is no way lessened in this account of the origin of the motions themselves. And the trouble of fathoming the depths of philosophy does not lie on my side, but on theirs who impute animal motion to fine machinery.

(b) *Quod multiplices, & plurimæ animalis motiones fiant electione, seu naturali appetitu quodam animalis; hoc quoque ut evidentissimum ab omnibus admittitur.* Borel. de mot. animal. part. 1. c. 1.

it, than simply to will it (c): nor can the will, by virtue of its command, produce motion in any part or limb of the body, if the *machine* destined by nature to effectuate that motion, and to be the *instrument* in executing that command, be defective or disordered. Thus if the muscle, or muscles, designed to be the instruments in moving any joint, be cut transversely, or any other way disabled from their function, the will may command with all imaginable intenseness, yet will no motion of the joint ensue (d). And this ineptitude of the mechanical instruments of motion, is the cause of the imperfection of spontaneous motion in *infants*, *decrepit old people*, and *wounded men*: for all on the part of the will may be equally disposed then, as at other times. And indeed the common sense of mankind doth not allow, or imagine it possible, that disease or age affects the will, or weakens the intensity of our desires. We are subject to no depredations of time, no decays, in that respect; and were there no other thing required to the production of motion, but to will the production of it, spontaneous motion would be always as the intensity of the desires, nor would the aptitude of the body be considered in producing the effect. This is still farther evident in *respiration*, which is a motion purely mechanical in us; for it is performed necessarily, and without an act of the will, as well when asleep as awake. Yet it is also partly subjected to the will; we can *accelerate*, *retard*, or *entirely stop* it for a little. And surely when it is thus accelerated, in consequence of an act of the will, it is no otherwise performed than when the will is not concerned in it; *that is mechanically*. Whence, as was asserted, *spontaneous motion doth not exclude, but suppose mechanical motion; and the spontaneity consists only in setting, or not setting the mechanism on work; or in an arbitrary command over the mechanism.*

XIX. Now *this thing* that *begins* motion where it was not, and *stops* it where it was; that effects a change from rest to motion, and from mo-

(c) *Manifestum quoque est cognitionem & appetitum per se tantum animalis partes non movere, & impellere, sed opus habere instrumentis necessariis, sine quibus motus effici nequeunt.* Ibid. And a little below; *At hæc doctrina* [Aristotle's opinion, that the spirits were the instruments that move the bones] *rejecitur à Galeno, & ab omnibus aliis, & ab ipsâ sensus evidentia, qua constat musculos esse organa, & machinas, quibus facultas animæ motiva articulos & partes animalis movet.*

(d) *Jam diu hoc confirmatum est, quia scilicet per transversum musculus, cessat omnis retractio illius articuli, ad cujus confinium musculus alligatus fuerat, remanente interim illâ actione ejusdem articuli, quæ ab aliis musculis ibidem desinentibus pendet.* Ibid.



tion to rest; and that arbitrarily, can never be matter, which, as hath been shewn, necessarily resists all change of its state, either of rest or motion. This would be a thing as self-destructive and repugnant as any that can be assigned; for the properties of the one of these, are directly opposite to those of the other. Though spontaneous motion supposes the mechanical performance of it; yet since it hath been shewn, N<sup>o</sup> 14, 15 and 16, that mechanical motion necessarily supposes an *extraneous immaterial Power*; and since, in the present case, *even this mechanical Power* is subject to the *spontaneous principle*, to set it at work, or stop it, and that in a very arbitrary manner; it can less be contended that *this principle* is matter, or any power possible to be planted in matter, than that the mechanical power itself is matter, or any power possible to be planted in matter (e). To assert this, would be as if we should say, that matter, which, as a solid, extended substance, would imply a contradiction to be endued with any power to change its present state, and therefore stands in need of an external power to effect all change of state in it, is yet in certain cases (of spontaneous motion, to-wit) endued with a power over this *extraneous immaterial power*, to impel and set it at work to produce a change in it self. Or, that matter hath the power over *that* which hath the power over *it*; which is foolishly contradictory. In short, the case is just the same as when a man works any machine, a pump, for instance, to bring up the water: the gravity of the atmosphere, which, as hath been proved, is no power residing in matter, but a constant impulse *ab extra*, is necessary to make the machine produce its effect; and all that the man doth, is to put the machine in such a disposition, as to give this extraneous principle *scope* to act. Here *two distinct principles* are necessary; the *gravitation* of the incumbent atmosphere, and the *living force* of the man, applied to dispose the machine so as that this gravitation may have room to be exerted. Just so, the *spontaneous principle*, by its action, gives *scope* to a *foreign power* to be exerted in the substance of the

(e) This gives a particular sanction to the proof of the immateriality of the soul of man; and (if I might say so) puts it one remove farther, in our way of reasoning, from being material, than the first Cause himself. And indeed it is generally allowed (though I do not say justly) that spontaneous motion is far more impossible to be found in mere matter, than that of gravity, elasticity, and other impressions which have been shewn to be immediately derived from Him.

muscles (by rarefaction, or ebullition, perhaps) (f) and produce the effect: so that here also *two distinct immaterial principles* are necessary to produce the motion, without either of which it would not be produced; so far is it from being true that none is necessary. And it is as absurd to say, that the *spontaneous principle* is nothing but the subtil matter, which by its action it conveys into the substance of the muscle destined to be the instrument of the designed motion, as it would be to say, that the *living force* applied (by the man) to the rod or winch of the pump, is nothing different from that winch or handle. Therefore I conclude, as was said just now, that *this thing, which thus arbitrarily effects a change of the present state of rest or motion in the matter of the body, cannot be the matter of the body itself, which necessarily struggles against all change of its present state.* And since this change is effected by *willing*; for spontaneous and voluntary motion is the same thing; *that thing which wills in us, is not matter.* And since willing is but a power, or property, which cannot subsist by itself, without a subject, or something of which it is the power (*cujus esse est inesse*); therefore I conclude, *that the thing which wills in us is an immaterial Being or Substance.* Of the other properties contained in the description of the human soul, N<sup>o</sup> 1. sect. 1. we shall see presently.

XX. Thus it appears there are two distinct immaterial Beings which produce motion in the matter of the body: that Being which is the principle of spontaneous motion; and *that other Being* which is alone the cause or power in circulation, respiration, and other motions not spontaneous, and a *coefficient Cause* even in spontaneous motion; which actuates all matter, and from whose immediate impressions gravity, elasticity, cohesion, &c. result. These are two distinct Beings, I say; for that Being which by the mandate of its will excites spontaneous motion in the body, hath no power over the circulation, either to promote or impede it; it often doth not know whether there is any such motion

(f) See Borelli de mot. animal. part 2. c. 3. De causis probabilibus vitalis contractionis musculorum; where he says, (prop. 24.) that the *succus nervus* instilled into the muscle, by the act of the will, is one probable cause; and (prop. 26.) the blood contained in the substance of the muscle, the other, of the fermentation, intumescence, and contraction of the muscle: and that (prop. 27.) the method of this ebullition is not different from common fermentation: and in prop. 25. that the soul acquires by *habit* the art of transmitting the animal spirits rather into one nerve than another, according to the part that is to be moved.

in the body; and when this motion is out of order, that Being can do nothing towards rectifying it again; and it hath but a very limited power over the respiration, which is performed without its concurrence, and even in opposition to it; for it cannot suspend this motion for any considerable time. *And a Being can never be the cause of such an effect as it doth not concur to produce, and which will be produced, in spite of all its endeavours to hinder it.* And though in spontaneous motion it is arbitrary, and the first Cause; yet the concurrence of the other Cause is absolutely necessary. If the mechanic organs of motion (which do not depend on it for their right disposition) be out of order, as was said N<sup>o</sup> 18. or if the immaterial Cause, which is the power in all mechanic motion, do not co-operate, no spontaneous motion will be produced; but an unperforming act of the will will pass without any effect. Therefore these two are distinct immaterial Beings, and not the same immaterial Being.

XXI. There are two things very remarkable here, and worth being taken notice of, as lying in our way, viz. that in this proof of the immateriality of the human soul, or of the necessity of a particular immaterial Cause in the production of spontaneous motion, the argument as strongly infers the causation, concurrence, or co-operation of the first and universal Cause, as of this secondary immaterial Being: And this is a right symptom, and perfectly as it should be, according to the nature of that universal Cause. But that which is astonishing in this appearance of spontaneous motion is, *That he should submit his infinite power to co-operate with the will of his creatures.* And as there is no avoiding this conclusion in right philosophy (g), so we cannot but admire this instance of the divine condescension.

XXII.

(g) What is here mentioned of the first Agent's submitting his infinite power to co-operate with the will of man, is no more than what appeared in N<sup>o</sup> 19. in the parallel case there spoken of, of a man working a pump. For whether gravitation, (that of the atmosphere, which there produces the effect, when the man, by voluntary motion, disposes the machine so, that this power hath scope to act) whether this gravitation, I say, is the immediate impulse of the first Agent, or the impulse of other matter, which must be first impelled by him, (unless we would exclude his agency altogether, and suppose an infinite series of necessary causes;) still, in this case, his infinite power, by the method and law he hath established in created nature, is subjected by him to co-operate with the action of his spontaneous creatures. And the same is to be said in all other cases, where the natural powers of matter, as they are called, are exerted in

consequence



XXII. However this consideration seems to require that we should dwell a little longer on the concurrence of the first Cause with the spontaneous mover of the body; to see if it may not appear by another method of reasoning than that in N<sup>o</sup> 18. Now if we say that no extraneous power concurs, and assists the spontaneous principle to excite motion in the body, we must say that the whole force exerted, is impressed by it immediately *on the first moved part*; or rather, (since the motion is communicated through a series of inert organs, which by *reaction* consume much of the first *action*, N<sup>o</sup> 3 and 14.) that much greater force is first impressed, than is ultimately exerted on the thing to be moved. For it is moved immediately by *something* that doth not communicate all the motion it receives, and that by *another thing*, &c. until we come to the *thing first moved*. But this first moved part (*animal spirits*, or *succus nervus*, or give it what other name we please) though it is absolutely certain that it must be matter, since, by the terms, it is a thing moved (*b*) and, by supposition, moves other matter by material impression; must yet be very subtil matter, and in a very small quantity, otherwise its nature, properties, and manner of operation had been better known before now (*i*). If then we consider the quantity of matter to be moved by the force impressed on this first part alone (no other force concurring by the supposition) which is often more than double the matter of the whole body, in cases where a foreign weight is also to be moved, and that this part which receives the whole impression is so minute and subtil; it follows that the quantity of matter in it bears scarce

consequence of any action of ours; as in shooting a bow, moving a spring, &c. So that this conclusion is to be made on any supposition, but that of direct Atheism; which I beg leave to observe shews the justness of that reasoning which infers it here. This is that which was referred to N<sup>o</sup> 5. note (*k*).

(*b*) Quia omnes muscoli, paucis exceptis, non agunt vitali motu, nisi quando volumus, & imperio voluntatis à cerebro, quæ est regia animæ sensitivæ; non transmittitur per alias vias, quam per nervos, ut omnes fatentur, & evidentissimæ experientiæ evincunt: cùmque præterea rejecta sit actio incorporeæ facultatis, & spirituum aëreorum; ergo necesse est ut aliqua substantia corporea, per nervos ad musculos transmittatur, vel commotio ab eâ communicetur, quæ possit validissimam inflationem istius oculi efficere. Borell. de mot. animal. Part 2. Prop. 22.

(*i*) Fateor me non percipere mechanicam operationem, quâ motus spirituum in cerebro imperio voluntatis agitati, eos dirigant ad titillandos certos & determinatos musculos, ut, si velim manum extendere, spiritus dirigantur non ad nervos pedum, aut thoracis, sed ferantur ad eos qui ad manus pertingunt, ut eos titillent. At si balburiendo aliquid loqui velimus, puto, &c. Ibid. Prop. 25.

any proportion to that of the matter to be moved by it; and if we should suppose (which is the only thing to be supposed, to render the effect possible) *that their quantities of matter and velocities were reciprocally proportional* (that is, that it as much exceeded the matter to be moved in velocity, as it is less in quantity) to render their forces but barely equal; then it follows that the velocity of *this part* would be so inconceivably great, that it would perforate any part of the body, opposing its direction, like a ball out of a gun, and so leave the body quite, without performing the designed effect. *Borelli* calculates that when a man extends his arm, and upon the extremity of his four fingers supports as great a weight as he can in that posture, the force that is exerted in the muscles to support this weight, is more than seventy thousand times greater than the weight itself, whatever this is (*k*). But it is impossible that a force equal to this could be directly impressed on a part, that almost escapes observation; without having the effect just now mentioned. Whence it is evident, *That all the force is not impressed on the first moved parts* (animal Spirits, v. g.) ; and that all that it doth is only to give scope to a far greater power to be exerted; and that this immaterial power is exerted in subordination to the will, or co-operates with it.

XXIII. This Author, who was the first that discovered that the force exerted within the body so enormously exceeds the weight to be moved without; or that nature employs an immense power to move a small weight, says thus of it; Part 2. c. 3. *De gradu virtutis motivæ vitalis musculorum secundum Antiquos. Hæc communis sententia* [the opinion of *Galen*, *Gassendus*, and others, to wit, That nature moves great weights by small powers] *tantum verisimilitudinem & probabilitatem in se habere videtur, ut mirum non sit, à nemine, quod sciam, in dubium fuisse revocatam. Quis enim tam stultus erit, ut machinam unquam quærat, ut magnâ vi pusillum pondus moveat, scilicet machinam & artificium adhibeat, non ut compendium, sed ut dispendium virium patiatur? Non secus ac si quis pondus unius libræ, quod immediatè absque ullâ machinâ movere atque sublevare posset vi, & robore æquali uni libræ, neglecto compendio, quæreret vèctes, trochleas, & alia organa, ut libram unam sublevaret viribus decies & centies majoribus. Et si hoc absurdum jure censetur, quid fieri poterit ut natura sapientissima, quæ ubique compendia, simplicitatem, & facilitatem quærit, tantâ industriâ ma-*

(*k*) *Idem*, Part 1. Prop. 45, 82 & 124.

cbinas in organis animalis elaboravit, non ut parvâ virtute magna pondera, sed è contra immenso propemodum robore parva pondera moveat? Hoc quidem licet videatur monstrum, & contra communem sententiam, non diffiteor me posse evidentissimè demonstrare, & petita prius venia, ostendere contrarie sententiae assertores allucinatos fuisse. Demonstrabo enim verè machinas in motionibus animalis adhiberi, & illas multiplices, & varias esse; attamen non parvâ virtute magna pondera sublevari, sed è contra magnâ virtute, & robore facultatis animalis parva pondera sustineri; ita ut multoties virtus motiva centies & millies superet pondus ossium & articulorum sublevatorum, & nunquam minor sit illis; & hoc erit præcipuum hujus primæ partis subiectum & materia. Thus far this excellent person in his entrance upon this surprising affair. And whatever may have been objected against his calculation of the force of the heart, or other particulars (1); yet it is obvious that in the main, it is as he asserts, with respect to spontaneous motion; viz. that nature employs a vastly great force to move or suspend a small weight, and there is a necessity in the nature of things that it should be so. For the Power that moves the limbs in this motion is confined to narrow bounds; or hath but a small room to act in; and the weight to be moved (the limb or part, and it may be a foreign weight joined to it, as when we throw a stone with our hand, or support a weight with our extended arm) moves through a much larger space. Therefore the power must be as much greater than the weight, as its distance from the center of motion is less. The wisdom of God and his power shines out wonderfully in this. The animal body was to be but of a moderate size; the power was necessarily confined to act within it; and the weight was as necessarily to be moved without it, in all motions. Therefore a great profusion of power and force was requisite to move small weights. And since a contrary disposition of things (where the power, to wit, should have acted in a larger sphere, and the weight moved in lesser room) was inconceivable; we see the power of God was not straightned, but hath laid out an immensity of force to produce

(1) Dr. James Keil, it is true, hath as good as demonstrated that M. Borelli is wrong in calculating the force of the muscle of the heart; and M. Varignon hath discovered another mistake of his. Yet it is but justice to set down what this last named Author says of him — *Au reste (says he) si l'on attaque une erreur ou M. Borelli est tombé, on n'en est pas moins persuadé du mérite extraordinaire de ce grand homme, dont les principaux ouvrages doivent être mis au nombre des livres les plus originaux qui aient paru dans siècle, ci. Avertissement au l'examen de l'opinion de M. Borelli sur les propriétés du poids suspendus par des cordes.*



the effect ; which seems indeed an extravagant expence of power to us, whose weakness forces us to have recourse to a quite contrary method. For we are obliged to give the *little power* we can employ a *large sphere of action*, that the weight may be moved a *small space*. The wisdom of God displays itself also wonderfully, in chusing the proper kind of power (speaking according to our conception) so as to require the least sphere of action possible : for an instantaneous fermentation is kindled up in the body of the muscle, where a force is exerted like to that of gun-powder : *Quæ possit validissimam inflationem ictu oculi efficere*, says Borelli (m). Let me be permitted

(m) The following animadversion hath been made with respect to what is said here. " As for the cause of the contraction of the muscles in animal motion, that seems one of the most abstruse phenomena in nature, and most disputed at present. An ingenious writer has refuted the more common opinion, without giving any distinct account of his own. There is so much reason to be cautious in natural philosophy, and slow in giving into any hypothesis, and the experience of many ages has shewed this so necessary, that it is by modesty and great care in reasoning about the hidden causes of these manifest phenomena that one will be heard upon them." But with much submission, though the formal manner of muscular motion is still disputed by Philosophers, all that I assert here is nevertheless certain, *viz.* that a prodigious force is exerted within the body of the muscle ; which follows from this known circumstance, that it is confined to act in a narrow sphere, while the weight is to be moved through a large compass ; and that therefore this is a wonderful instance both of the wisdom of God in contriving, and his power in exhibiting this phenomenon. We are ignorant of the formal manner how lightning hath such stupendous effects ; yet the effects themselves are not to be contested. If we are certain of a particular circumstance in any appearance which is above any thing but infinite power to effect, such as in this case, for instance, the prodigious force exerted, and which it is necessary should be exerted, on account of the narrow space it is confined to as a mechanical power, while the weight to be moved lies at a great distance ; and if we are certain that such a force is applied, which though it acts with speed and violence, yet acts mildly and innoxiously to the neighbouring parts, and without pain even to the most tender parts themselves, though actually concerned and employed in the production of the phenomenon ; if we are certain of this, I say, we have all the reason in the world to admire that Power which is able to make good such an effect, and that too by a method so different from what our weakness would force us upon, though we are entirely ignorant of the formal manner how this is brought to pass. If we act *strongly* we act *destructively* ; but here the power is exerted in another manner. It acts with *strength* and *vigour*, and yet with *safety* ; the force applied is *guarded* and *restrained*, and therefore, though immense, it does no mischief. What if this is done by way of a string of bladders ? This neither diminishes the power exerted, nor the contrivance. We saw before that a slender film of air supports a mighty weight, and that without contact. This but increases the wonder ; for matter cannot resist above its *vis inertiae*, nor, being inert, multiply the force impressed upon it ; and the superplus of force exhibited must come from another hand. In short, a weight cannot be suspended but by an equality of re-action either from the *inactivity* of matter, or from a *living power*. If

mitted to shew the difference between the method of the Deity and of us men in the exertion of power, by the following rude comparison. Let us

If we knew the mechanical manner of muscular motion, could we cease to admire, or immediately assign a *new power* to matter to answer the appearance? This would be quite wrong. As I have said above, we can trace power and wisdom in any of the works of nature a great way, to shew us the perfections of the cause; but we cannot pursue the inexpressible subtilty of contrivance and machinery to an end, to teach us to admire beyond what we can formally conceive. And this is as rational in right philosophy (that is, where finite intelligent Beings are to be instructed by the works of an infinite Architect), and as absolutely necessary, if we would act rationally, as it is to ascribe what we formally conceive to art and power. Would we know all the art and power of an omnipotent *Creator*; or allow no power and art beyond what we know? Let one answer this at his leisure. We are but in our first stage of existence; a fund of instruction is undoubtedly reserved for us till hereafter. What else were philosophy worth, if not to train us up in the knowledge of this *Cause*, but to gratify an unmeaning curiosity, or be a meer pastime, or to make us despise others? There cannot be proposed another consistent end of it. Would we pursue the knowledge of mechanical causes in nature to help us to admire the *skill* and *art* of *chance*, or the *wisdom* of *necessity*? I wish men would think on this plain, short question.

But to return, any one will see that my design, or the particular argument here, doth not lead me to espouse any hypothesis; but to shew in general that motive power cannot be lodged in matter; nor therefore that the direction of the force, nor the contrivance and design can be imputed to it, or to any furd cause. The true mechanical solution of any phenomenon, whenever it is given, or by whomsoever it is discovered, will always confirm this. I have no occasion therefore to thrust myself into the controversies of philosophers that are out of my road, unless they oppose this conclusion; in which case some better hand will certainly appear in such a cause. In speaking of these particulars of muscular motion, *viz.* the great force exerted, and the narrow sphere it acts in (which are very certain circumstances) I refer to *Borelli*, as the *most authentic writer*. Yet he calls the chapter where he speaks of the causes of the contraction of the muscles, *De causis probabilibus* only; and in another case, he says, *Fator me non percipere mechanicam rationem*, &c. as was cited just now. Here is no hypothesis obstinately defended. He proposes what he thinks probable; every one will do the same. Sir *Is. Newton* hath proposed his *elastick Fluid* to answer the same appearance. I compare this force to that of gun-powder, not by way of hypothesis, but to help myself, and others like myself, to conceive the *suddenness* and *strength* of the effect. Thus far the comparison serves; but in respect of the *harmlessness* of the force it *haults*. To a like purpose I make use of another rude comparison of the lever immediately after, which indeed wants much indulgence. Why should our ignorance of what we know not hinder us to make a right use of what we know? When we consider that in every successive intumescence of a muscle, there is a sudden explosion, as it were, where a certain matter is consumed (as, according to *Borelli*, I think the phenomenon of lassitude declares) and consider farther the *quickness*, the *indefiniteness* of this, as when one walks a whole day, or works at any hard labour; we shall hardly be able to help admiring the power, the goodness, and (if one durst so express it after our manner) the pains the infinite God of nature is at in animal motion.

suppose a lever twenty or thirty foot long on one side of the *fulcrum*, or point supporting; and scarce half a foot on the other: *man* would apply his little power to the twenty-foot extremity to raise the weight through half a foot; but the *Author of man* applies a sufficient force to the half-foot extremity to move the weight through a sphere of twenty feet. This may help us in some measure to form a notion of the difference of the method, and of the effect produced.

XXIV. From this we may see the truth of what was said, N<sup>o</sup> 9. sect. 1. viz. that matter is so powerfully resisting a thing, that man could overcome the resistance but of a mighty inconsiderable part of it, without the concurrence of a greater power than his own; for really all the motion that is to be properly ascribed to his power, is that impressed upon the first moved subtile matter, which occasions a superior power to be exerted in all the other parts of the body. And this again infers all that was asserted, N<sup>o</sup> 12. of this. For as it appears by what was said, from N<sup>o</sup> 26. sect. 1. to that N<sup>o</sup> 12. that the *first Cause* is the *constant* and *sole Mover* in all the inanimate and unvegetating parts of matter; so it evidently follows from what hath been said since, that *he is no less powerfully present* in all the spontaneous motions of animals; which (except as to the will and spontaneity, and a small force impressed on a very inconsiderable part of the matter of the body) are immediately effected by him. Let us take an example, to consider how many ways his power is exerted in producing the effect in an ordinary instance, without dissembling truth for fear of its consequences. *Truth can have no ill consequences; nor need we be afraid to follow wherever it leads.* When one discharges an arrow out of a bow, the spontaneous mover (the immaterial part, or soul) *wills and designs* the production of the action: and this entitles it *his action*, in all the moral consequences of it, whatever they are. This mover doth moreover something that sets the mechanism of the body at work; and thus far only it is an agent. The matter of his limbs, the natural powers being exerted in it by the *first Mover*, in consequence of the *spontaneous mover's* willing, impresseth by its resistance and firm cohesion, (which is also *his impulse*) a force on the bow, whereby it is bended; and this is the immediate efficiency of the *first Mover*. This force is withdrawn, and the spring of the bow hath scope to be exerted, and to discharge the arrow. This is again the effect of the *first Mover*. As soon as the arrow is out of the bow, the action of gravity constantly impels it, so that it moves in a certain determined



determined path, or curve; and in its descent, what by the action of gravity upon it, (which is the constant impulse of the *first Mover*) and what by the force communicated to it by the restitutive action of the bow, also impressed by *him*, it falls on an innocent man perhaps, and wounds, or kills him. How far the Atheist may mistake this as an objection to the goodness and justice of this Being, we may see hereafter. But in the mean time it is evident, that the particular mover in the human body hath but a small share in producing all this motion. And yet from thence a gradation begins to be perceptible (*n*).

XXV. When I consider this whole reasoning, and withal reflect how opposite it is to the settled prejudices of men, I foresee it will be narrowly canvassed both by *friends* and *adversaries*; and am hopeful from reviewing it over and over, and considering the frivolousness of the objections that have been yet offered against it, that it will be found solid and just, or at least that no mistake will be found affecting the main conclusion: and I am the more encouraged to hope this, by considering that Dr. Clarke carries this speculation the same length. And I am also persuaded that any man who begins with the *vis inertiae* of matter, and reasons fairly, must carry it the same length. Only let me observe, that if the Doctor had written in that diffuse manner I have done, and on this single topic separately, how many other arguments, nay how much better arguments (I say it without affectation) might have been reasonably expected from him! And now having said thus much, let us stop a little to set the former arguments and our prejudices against each another. What may one

(*n*) If we observe, there is a *gradation* or *scale* of *ascent* of the principle of action among creatures, in proportion to their perfection. For from what is here said, it is plain the first Being is the sole principle of action in all *inanimate matter*. In *animal motion*, the animals themselves are admitted into a small participation of the production of the effect, as they have the direction of some motions, or the power of beginning them. *Brutes* and *men* are thus far spontaneous with regard to the motions of their bodies. But men have farther a power of directing arbitrarily their perceptive capacity to and throughout their past perceptions, which brutes have not, as shall be shewn, and which therefore is the *specific difference* betwixt rational and irrational beings: for this power is the foundation of the rational nature. Of these things afterwards. As to the power of moving matter, it is extremely probable that higher orders of beings, have it in a great degree; and that, as Dr. Clarke insinuates, they may exert this power for particular designs of Providence. But still the universal influence upon matter, and that various impulse whereby all the particular parts of the Universe, and individual things, by a constant law and tenor, are preserved, must proceed from the first Cause.

seriously think of all that passes in nature? *I rise from my seat.* By whose power? *I proceed a step.* Who assists me? What various action is here excited by the simple act of my will, without my farther participation! *I move my hand, my finger; I pronounce a word.* Must I have recourse to the living powers of dead matter? *I feel my pulse; observe my respiration.* What action and power are exerted in these? Who exerts it? Are inert particles, finely set together, sufficient? Philosophy will not allow us to admit of such absurdities. What are we to admit of then? Can power and wisdom be the effect of nothing? Or of any thing but a powerful and wise Being? Doth vigilant matter perform all while I sleep? Is it unphilosophical credulity to believe a God? Philosophy should then explain things without him. Or is any one man singular in having such various action incessantly performed for him? Is nothing done for any other man, any other animal, any vegetable?——*But is it possible to find so much power as to perform all this?*——Is not that power possible which is actually exerted? We would not scruple to allow nature (a surd entity in our minds, a philosophical name) all this power.——*But can all this power belong to one Being?*——Infinite power may belong to one Being. It cannot belong to two. There should necessarily be a division. Infinite power divided ceases to be infinite power. Infinite power must belong to one Being.——*But can one Being be every where present, to exert such various action about me, every other man, every other thing?* He would not else have infinite power. Excluding it from any place, or thing, limits it.——*But can such a Being subject himself to such constant, universal, little work?* Doth the Deity really actuate the particles of matter in my vile body? Is it not more philosophical to find out some less worthy cause to answer this universal effect? Yes perhaps; dead matter, universal chance, universal necessity, something that acts wisely and powerfully universally, without either wisdom or power. These are less worthy causes, but they are contradictory ones. Perhaps infinity of power may be puzzled, straitned, perplexed; perhaps it cannot reach to infinitely little things; things below a certain greatness? But is this universal effect so unworthy? Whose is the matter of the vilest insect? By whose laws, whose wisdom was it formed?——*But really (say you) this is very terrible! Is the power of God constantly so near me? Doth he know so intimately every thing I do?* Why? If he be infinite, where can we lurk? What other thing, what other being besides this infinite one could preserve us, and perform the various actions on which our life depends? Is it so terrible to be preserved a  
thousand

thousand different ways? We are rational; if we act as such, what have we to fear? He is infinitely rational, and cannot but love the works of reason.——In all these questions, the men who scorn to be determined by any thing but the force of reason, will determine, and chuse their own side.

XXVI. And now, can we be at a loss for a demonstration *that there is a God*; that he is near *every one* of us, at *all* times; when the greatest philosopher cannot account for the motion of his own finger, without having recourse to his power immediately put forth in the performance of it: when we cannot turn our eyes, our thoughts, to any one thing in nature, which doth not shew his power immediately exerted: when otherwise, the parts of our own bodies would be scattered like dust before the wind, by every force that could only overcome their simple *vis inertiae*, that is, (N<sup>o</sup> 8. of this) *by every force*? And if we consider that the other infinite perfections in the Deity of justice, wisdom, and goodness, cannot be separated from his presence, knowledge, and power, without denying his existence entirely, and at the same time all evidence and truth, as shall be shewn; if we consider this, I say, it all together affords us such a view of the Divine Providence, as must be very comfortable to creatures otherwise so *weak* and *helpless* as we are; extremely pleasant and satisfying to the *rational* nature, that must be pleased to find an *infinite reason* at the head of things, instead of the Atheist's ill-supported, tottering world; and wonderfully astonishing to our weak and finite comprehensions. This is *that scene of Providence* deducible from matter of fact in the Universe, confirmed by one uninterrupted experiment (his power indefinitely exerted on every thing to which we can turn our thoughts or eyes) and discovered (as was said in N<sup>o</sup> 7. sect. 1.) from this single truth, *that matter, as a solid, extended substance, necessarily resists all change of its present state of rest or motion.* And now let the Atheist be asked in his turn, what reason *Lucretius* had for exclaiming against his notion that a being could be *omnibus inque locis, inque omni tempore præsto* (o); and for setting up in his room, according to his own unphilosophical prejudices,

(o) Nam (proh sancta Deum tranquillæ pectora pace  
 Quæ placidum degunt ævum, vitæque serenam!)  
 Quis regere immensi summam; quis habere profundi  
 Endo manu validas potis est moderanter habenas?  
 Quis pariter cælos omnes convertere? Et omnis  
 Ignibus æthereis terras suffire feracis?



judices, an infinity of nothingness beyond all being, and a huge monstrous necessity, an empty unsupported cause of things, itself nothing, and belonging to nothing? From this also may appear how little is in that boasted argument of his and his followers, *that in an infinite lapse of time, all possible combinations of things must have happened, and so all possible productions of plants and animals must have been effected* (p). 1. Matter resists motion, and wants an extraneous, immaterial Being to move it. 2. If put in motion, it resists a change of the direction. 3. If the direction is changed, the quantity of motion is diminished, from the collision of the atoms among themselves. Hence not one single new combination could have happened through all eternity, allowing matter could have existed without a cause. 4. But

*Omnibus inque locis esse omni tempore præsto?  
Nubibus ut tenebras faciat: cælique serena  
Concutiat sonitu? tum fulmina mittat; & ædeis  
Sæpe suas disturbet; & in deserta recedens  
Sæviat, exercens telum, quod sæpe nocentis  
Præterit, exanimatque indignos inque merentis?*

Lib. 2. ver. 1092.

I beg these lines may be remarked. How grandly doth a contradiction sound, set off in a poetical dress! A reader cannot withstand his own prejudices when he finds them recommended to him in such lofty numbers. He calls the Gods to witness against themselves, that they have no power; that no being can have power to wield the heavenly bodies, and drive them round, and perform the other effects that are done in the Universe. But may we not stop him in his sublimity, to ask, If no being hath power to do this, how comes it to be done? He will answer, this power is so great that it can belong to no being: therefore it is better to find out something else that may perform these effects; atoms, chance and necessity may perform all. But the first of these causes, *atoms*, is inert, or hath only a negative power; *chance* is a bare sound; and *necessity* is a cause which has nothing to recommend it but that the word consists of two or three or more syllables. It is strange that such stuff should pass for philosophy, and have amused the world so long! The names of these causes are now somewhat antiquated, and their power is recruited with a new appellation. We call them *nature*, and the *natural powers of matter*. If we would add the epithet, *inactive*, and say honestly, *The natural powers of inactive matter*, we should spoil the whole mystery of all kinds of Atheism at once.

(p) *Nam cerè neque consilio primordia rerum  
Ordine se quæque, atque sagaci mente locarunt;  
Nec quos quæque darent motus pepigère profecto:  
Sed quia multimodis, multis, mutata per omne  
Ex infinito vexantur per cita plagis,  
Omne genus motûs, & cætus experiundo,  
Tandem deveniunt in talis deposituras,  
Qualibus hæc rebus consistit summa creata.*

Lib. 1. ver. 1020.

making

making a large concession, that the just combination of atoms, requisite to form the body of an animal, some way or other might have happened; *the two most essential things* are still wanting; a *constant extraneous impulse* to be the *power* in circulation, respiration, and all other motions purely mechanical; and farther, another *immaterial principle*, to be the *loco-motive power* in spontaneous or voluntary motion. Besides, learned and good men, taking the argument at all disadvantages, have shewn that the *improbability* of such a combination of atoms is to the *probability*, as an infinite number to unit, or nothing. Only it ought to be considered in this kind of argument in reasoning about the degrees of probability, whether that doth not allow the effect in some degree possible, which yet is absolutely impossible. The argument cannot come to a calculation, without supposing the possibility, and reality too, of *four successive contradictions*.

XXVII. Let us now return to the consideration of the other properties of the human soul, and see whether it is possible that matter may be capable of them. The *second* species of activity mentioned in N° 1. sect. 1. is *spontaneity of thought*, where the power is exercised over our own perceptions; and it implies the power of willing, as being really exercised by volition. If we are active in turning our perceptive capacity to any object, it must be by willing; and if we do not will this, we are not active but passive in it. And generally, *no kind of activity is conceivable without volition*: a thing that is incapable of willing the action that is performed by it, must be supposed *to be physically impelled to it*, but not to have the principle of action in itself. "If it acts blindly, and without being capable to will the action; *why should it ever cease from action, or ever begin the action?*" "It should either act *always*, or *never*." This shews that it must have an external determining principle. We cannot ascribe a change from *action* to *non-action*, or *è contra*, but to some cause. *This principle* should have been more regarded by men who speak of active matter, and active powers in matter. If matter effects a change of state in itself blindly, and without a principle; it must either *always* effect it, which I have shewn to be contradictory, (see the note at N° 14. sect. 1.) or *never* effect it, which is no less a contradiction. *That is*, when a change of state is effected in matter, it must be by an external principle determining it, or by the internal determination of volition: or, that it cannot be without one of these, or some third way. But it is as good as already proved, that matter cannot be endued with the power of volition. It was shewn before, N° 19. of this,

that spontaneous motion is effected by volition; *spontaneous motion is the same as voluntary motion.* Now nothing needs be more evident than that, since to effect motion is absolutely above the power of matter, *the power that effects motion is absolutely above matter.* Or take it thus, matter as a solid substance necessarily resists all change of state; *therefore it is incapable of being endued with that power that could change its state:* If it were capable of being endued with this power, we should be obliged to deny its resistance; and therefore its moment, (N<sup>o</sup> 22. sect. 1.) as also its solid extension (N<sup>o</sup> 26.) In short, it is as incapable of being the subject in which this power and resistance can at once reside, as of being the subject in which resistance and its contrary can at once reside. Matter therefore is incapable of all kind of activity, or of being endued with any power, except that one negative power of remaining in the state in which it at present is, as Dr. Clarke asserts.

XXVIII. Now since this is so, though we should grant that matter might have a degree of perceptivity in it, yet notwithstanding of this perceptivity, it must be as inactive in all senses, as it could be without perception. It could as little move itself then, or change its present state of rest or motion, as impercipient matter could; and it could as little turn its perceptivity to any object, or change the state of its perception, as it could turn itself to another position, or change the state of its rest or motion; that is, as if it wanted that capacity altogether: since either of these would suppose activity, or *a power of willing* in it: that is, it would be as sluggish, dead matter, in all senses, as any supposition could make it. But surely to ascribe such a property to it, as leaves it as inactive, either to *motion*, or *thought*, as when that property is denied of it, is folly. The only remaining resource for the Atheist is, to suppose, *That possibly some kind of activity may be among the powers of matter*, which was just now shewn impossible. Any other being could never know whether it had such a degree of perceptivity, or not; since it could do nothing more to discover it, than matter that had no perception: that is, *it is impossible the person who asserted this, could ever have any ground for his assertion.* And lastly, from such perceptivity thinking could never be produced; for thinking implies active perception, or *activity joined with perceptivity.* For which cause it is that, though irrational animals are percipient, and also active in willing motion; yet wanting the other species of activity, the spontaneous direction of their perceptive capacity towards and through their past perceptions, they cannot be called *thinking creatures.*

XXIX. But



XXIX. But really matter hath no such perceptivity at all: for of what could it be percipient? Not of its own action in *moving*, nor of its internal operations in *thinking*; all action in it being impossible. Thus it would have no object to be perceived. If it should be said that it might be percipient of the action of other matter upon it; not to mention that action is impossible in all matter alike; then such perception ought to be as mechanical and necessary as the action of matter upon matter is. And because *action* and *re-action* are equal, the perception ought to be excited equally in both the *matter acting*, and the *matter acted upon*. The perception ought to be strong according to the force of the collision: nothing but no force at all could produce no perception at all; but in all other cases the perception should be something. But these consequences are absurd, and false; and therefore the supposition from which they follow must be so too. In a mortified or gangren'd limb we have no perception, though it is touched, or even cut off. It must be organically united to the *percipient being* in us, that perception may be excited by the action of other matter upon it. We had perception of the action of other matter upon that part before, but have it not now, when the organism is vitiated; which shews that some other thing is necessary besides the action of matter upon matter. When we touch the hair of our head, action and re-action being equal, the perception ought to be as strong there as in the other part: so if the finger strikes against the eye, or any sore or wounded part, the quick sense of pain should be felt in both parts equally. And since matter cannot be percipient, it cannot have ideas; ideas are perceived, and are consequently nothing but perceptions; and therefore it cannot have sensation, feeling, or life, because all these imply perception (*q*).

XXX. From this we may see what little reason Mr. *Locke* had to be so peremptory in his dispute with the bishop of *Worcester* about the possibility of matter's thinking; where, to prove it possible, he says, "For example, "God creates an extended solid substance, without superadding any thing "else to it, and so we may consider it at rest: to some parts of it he su-

(*q*) This whole argument that matter cannot think, nor move itself, concludes in much fewer words, from considering the endless divisibility of it; which shall be insisted on, when we come to consider the pleasures and pains of the body, as distinct from those of the mind.

"peradds

“ peradds motion, but it has still the essence of matter. Other parts of  
 “ it he frames into plants, with all the excellencies of vegetation, life, and  
 “ beauty, which is to be found in a rose or a peach-tree, above the es-  
 “ sence of matter in general, but it is still but matter. To other parts he  
 “ adds sense and spontaneous motion, and those other properties that are  
 “ to be found in an elephant. Hitherto it is not doubted but the power of  
 “ God may go. But if one venture to go one step farther, and say God  
 “ may give to matter, thought, reason, and volition, as well as sense and  
 “ spontaneous motion, there are men ready to limit the power of the om-  
 “ nipotent Creator, and tell us he cannot do it; because it destroys the es-  
 “ sence, or changes the essential properties of matter, &c. (r)” A man  
 may warrantably say, that to effect a contradiction is not the object of any  
 power; nothing less limits Omnipotence: and such it is to effect that a sub-  
 stance, which as solidly extended, must resist all change of state, should,  
 while remaining solidly extended, become of *dull, dead earth*, life, sense,  
 and spontaneous motion (s); for that is to say, it becomes *living, sensible,*  
*and spontaneously moving earth*, while it remains dull and dead earth. So  
 that, notwithstanding of this complaint, as if the bishop had been unrea-  
 sonable in opposing his conclusion, it appears the reason was good, and  
 that he could not go one step farther, without destroying the essence of  
 matter, viz. *solid extension*; and that he had gone a *step or two* too far be-  
 fore, in making the *spontaneous mover* in an *elephant*, and the *external mover*  
 in the mechanism, both of plants and animals, *properties* of dull and dead  
 earth. A little farther on he is more express: “ But if you mean (says  
 “ he) that certain parcels of matter, ordered by his divine power, as seems  
 “ fit to him, may be made capable of receiving from his Omnipotency  
 “ the faculty of thinking; that indeed I say, and that being granted,”  
 &c. (t). This author hath well observed, that they are different conside-  
 rations that prove the soul *immortal* and *immaterial*; but yet when he says,  
 “ That it is as evident to him, that brutes reason in some instances, as  
 “ that they have sense (u);” and here takes it for granted, “ That it is but

(r) Book 4. chap. 3. sect. 6. in the Note at these words, *We have the ideas of matter and thinking, but possibly shall never be able to know, whether any meer material being thinks, or not; it being impossible for us, by the contemplation of our own ideas, without revelation, to discover whether Omnipotency has not given to some systems of matter fully disposed, a power to perceive and think, &c.* This is founded upon what Mr. Locke elsewhere endeavours to maintain, That our ideas are only arbitrary combinations, without connexion to any thing in nature.

(s) In the page immediately after, viz. 145. vol. 2. edit. printed 1715.

(t) Pag. 150.

(u) Book 2. chap. 11. sect. 11.

"mere matter with superadded properties, that thus reasons, (though he offers no proof of either of these assertions;) and since all men suppose the matter of the brute body finally dissipated at death, this gives an *ignorant sceptic* courage to affirm that it may be so with the human soul. Why should we maintain a point *gratis*, and barely for maintaining's sake; as here Mr. *Locke* allows the soul is immaterial, but contends it might have been material; why, I say, should we maintain a point *gratis*, that hath a bad tendency? Were all other arguments wanting, this itself should be one against it. No truth by being known could have a bad effect on the minds and lives of men: and contrarily, what will always have a bad effect on the minds and lives of men, will have strong probability at least against its being truth, supposing no argument could be brought for or against it.

XXXI. There is another particular here, which I can't help remarking, tho' it's almost superfluous; which is this, because *we cannot conceive how matter acts on spirit, or spirit on matter*, we fall to making hypotheses and conjectures, which we might as well let alone; for these suppositions only give us ease through a mistake. Thus *some* make all created spirits not wholly free from matter, that they may be acted upon by matter. *Others* rarify matter to a vast degree, and make spirit of that; and *others* have given our souls material vehicles, to give and take impressions to and from matter. But if this matter with which spirit is *mixed*, (as it is expressed) be not resisting matter, it can never make any impression on the matter of the body, which is resisting matter, and requires force or *moment* in the matter that makes an impression upon it. So that it were as good to give spirit no material vehicle, as a vehicle of *unresisting* matter; since it must, notwithstanding of this vehicle, make impression upon body immediately by itself: and we had as good give it no vehicle at all, as a vehicle of *resisting* matter; since spirit could as easily affect the matter of the body immediately, as the resisting matter of its own vehicle. Besides, since we cannot conceive how any thing not matter should act on matter, or how matter should act on any thing not matter; we are as much at a loss to conceive how the spirit acts on its vehicle, or it upon the spirit, as without that hypothesis. Thus much is certain, that since a solid extended substance, as such, is inactive and dead, and yet is moved, it must be moved by a substance not solidly extended, whether we conceive the manner of it or not. The *first Being*, who is surely a pure Spirit, moves matter. This power of moving some matter, though in an infinitely small degree, it hath



hath pleased him to impart to the human soul : For however it may be joined, or mixed with matter, it is certain the motion excited in matter must arise from the substance purely spiritual ; and that even the matter imagined to be *blended* or *mixed* with it, must be moved and actuated by what is not matter ; otherwise there would be no need of any immaterial substance. And on the other hand, if an immaterial substance is acted upon by matter, it can be no greater relief to the imagination, to suppose it acted upon by the matter joined to it, or mixed with it, by its vehicle, for instance, than by the other matter of the body, to which it is vitally united. These I think are but *fruitless struggles of the imagination* to grasp things that do not belong to it ; to conceive the action of spirit on matter, or matter on spirit, after the manner of the action of matter upon matter.

XXXII. This truth, *that matter cannot be moved without an immaterial Being*, may help to take away the old controversy, *Whether the soul is propagated by traduction*, kindled up as it were by the souls of the parents, as one flame excites another, without losing any thing of itself ; if it is true that there is a pre-existent animalcule in the semen, which moves spontaneously. And indeed there is little reason to doubt this, more than to doubt the circulation of the blood ; both are discovered by sense the same way assisted ; if we believe from the information of our eyes, that there are *several very rapid torrents* continually flowing in the *slender film* between the toes of a frog, we must also believe that there are numerous animalcula in the male-seed. Besides that we must otherwise return to the justly exploded absurdity of equivocal generation : for it is as conceivable (in the stated laws of generation) that an animal should spring from a hair of the head, as that the heart should grow first, and the other parts of the animal accresce to it afterwards in their proper places. *All animal growth or vegetation is performed by a circulation of fluids, and not by a mere addition of parts, or agglutination to the outside of things already compleat.* Therefore if we would say that a certain part of the animal body is formed before all the rest, we must allow a circulation even in that part, supposing it an organized compleat system by itself ; or else we make it a mere excrescence of the body of the parent animal, and formed in a manner below the vegetables, in which though probably there is not a perfect circulation of the sap, yet there is something equivalent thereto. [See Mr. Hales's *Vegetable Statics*] by which every part of a plant is expanded, and,

and, if I may so say, receives nutriment and growth internally. The origin, or rudiments, of a living creature therefore must be *one co-eval system*, containing a *circulation* of juices and nourishment. And generally all seeds of things seem to be the immediate and particular work of Omnipotence. If they were natural productions, it is scarce conceivable that they should regularly keep their kinds (v). These little systems then moving thus spontaneously, require as much an immaterial Mover, as afterward when grown larger, and unfolded into all perceptible members of an animal. But when the body, folded up in this small volume, and its *immaterial Mover*, were first united, is not a point so easily to be determined. Possibly the *seminal atom*, though existing from the first creation of matter the same individual system, is not yet informed by its *immaterial inhabitant*, till it comes through various changes, to be at last deposited in the proper receptacle of the parent animal. At least it doth not appear that one who should say this, could be shewn to affirm any thing absurd or impious. It should not give us a low notion of the human soul, that it is shut up in such a diminutive system, or so long hinder'd from the improvement and exercise of the powers it is endued with: *great* and *small* are but comparative in this case, and not absolute. If the body, of what bulk soever, were without *eyes, ears, and the sense of feeling*, it would be as much shut up, and the exercise of its faculties as much impeded as in its original state. But the chief argument against this absurd opinion of the generation of souls (and that equivocal, if I may so say) is the consideration that the soul

(v) It is true, after we have seen that the influence of God is so universal on all the parts of matter, we cannot be afraid that there should be any mistake or confusion of the species of things in the world; yet, I think, we are forced to conceive this to be, by an immediate particular act of Providence, in forming their original seeds, and that they are not left to be produced by vegetation. The law of vegetation seems to suppose a pre-existent subject or seed, besides matter in general, which seed itself is not produced by vegetation. But if we are forced to conceive a *double act* of Providence intervening here, as it were; how can it be accounted for without any Providence at all? Observe how *Lucretius* represents the difficulty justly great; and then consider his principles for the solution of it.

—genus omne ferarum  
 Incerto partu, culta ac desertis teneret.  
 Nec fructus iidem arboribus constare solerent,  
 Sed mutarentur: ferre omnes omnia possent.  
 Quippe, ubi non essent genitalia corpora quoque,  
 Quâ possêt mater rebus consistere certa?

Lib. 1. ver. 164.

is immaterial: for it is as absurd that immaterial substance should generate immaterial substance, as that matter should generate matter. Such generation would not differ from creation. And the opinion of the transduction of souls must either suppose new immaterial substance generated, or that these souls are material, or some power of matter. All which are absurd.

XXXIII. And this again prevents an unskilful objection of sceptical men, That a good and just Being could not infuse a soul in adulterous or incestuous copulations (x). For, if what was just now inferred be true, the soul is previously united to the *seminal system*. But were the thing as they imagine it is, it would be no objection to a fair and rational *Enquirer*: for the whole rests on this supposition, *that an infinitely good and just Being must hinder all injustice and wickedness*. But this would be to take away freedom and spontaneity of thought from thinking beings; and amounts in effect to as much as that he should not have made a free, or even a thinking Being (y) at all: since all the *obliquity* of a moral action, or the deviation from the *rule of action* consists in the *thought* and *will*. This is a bold way of objecting, which a man, who considers what he says, will be aware of. Freedom is a perfection; and any of the objectors, no doubt, takes him-

(x) This objection seems borrowed from *Lucretius's* ridicule on the subject of souls entering into bodies, in the following lines, Lib. 3. ver. 777.

*Denique connubia ad veneris, partisque ferarum  
Esse animas præsto, deridiculum esse videtur;  
Et spectare immortalis mortalia membra  
Innumero numero; certarèque præproperanter  
Inter se quæ prima, potissimèque insinuetur:  
Si non fortè ita sunt animarum fœdera pacta,  
Ut quæ prima volans adveniret, insinuetur  
Prima; neque inter se contendant viribus bilum.*

It is certain, by what goes before, that every animal hath a *living immaterial substance* notwithstanding of this sneer; and that the union is the particular effect of infinite power.

(y) Without freedom there cannot be a *thinking being*, but only a bare percipient being: for thinking implies the turning the perceptive capacity from one perception to another, by an act of the will; otherwise a percipient Being would have but one solitary perception always in view. And if the Being doth not this by an act of the will, but is impelled by an external principle, how can it be said to think, being acted, and not active, in every thing beyond bare perceptivity? What is it to will? Is it not to act? If it be to act, it is to have the internal principle of action: and if it hath the internal principle of action, it must be free, and needs not be further acted or impelled in thinking. An active being, a thinking being, and a free being then, are synonymous terms.



self for a nobler, perfecter creature, than an *oyster*, or a *muscle*, which, though in some measure percipient, are yet percipient but of one constant, necessary sensation. *How unreasonable are we!* We would have the liberty of gratifying unreasonable passions, and pursuing false pleasures; and yet pretend to quarrel with God for allowing us that liberty. *Would we be free?* This question I shall suppose answered. No one would chuse to be such a creature as an *oyster*, or a parcel of inanimate matter. *Would we be necessitated to do good only?* — Let it be observed; we are under all the *moral necessity*, that is, have all the moral motives that the nature of things can admit of: a greater necessity of this kind than we are under is an absolute impossibility. That *would suppose that virtue might be more reasonable; or that we might have more reason for acting rationally, than we have.* — And contrarily, we have none of this necessity at all for doing evil: that too is as absolutely impossible; unless we call that a necessity which is of our own procuring, by precontracting vicious habits. This is as advantageous and wide a difference as we could conceive. — To be physically impelled to good, or repelled from evil, is again inconsistent with freedom: to be *not agents*, but *mere puppets*, played with *wires* and *springs*, incapable of virtue itself. — Thus, unless we would have the *natures* of things violated, that is, an *impossibility wrought* to please us, our condition with respect to *freedom* and *necessity*, is absolutely the best and most advantageous we could have been placed in.

XXXIV. As to God Almighty's supporting the mechanism of our bodies, while an evil action is committed by us, and acting upon matter then with the same *constant impulse* of gravity, attraction, cohesion, &c. as at other times; let us consider that the *bare materiality* of the action, that is, *in so far as it is performed by the motion of matter*, is in itself neither morally good nor evil; for the same material action, which at one time is *evil*, is *good* at another, according to the difference of the circumstances: that is, the *good* or *evil* doth not lie in it, but in something else; namely, the *will* and *design*, as has been said. If we were creatures that had no communication with matter at all, or if the motion of that substance were unconcerned in our actions; yet if we had the *same*, or equally *bad thoughts*; then, as now, there would not be less moral evil, nor we less guilty. And by changing the supposition a little; if we had still the same thoughts that we have, but were impeded in the execution of all our evil designs, by Almighty God, we should still be equally guilty in his sight. He who

is hinder'd in the execution of a murder, but had all the propensity, and ill design, that he could have had, to make it take effect, is as guilty on supposition his design does not take effect, as if it did. As to our communicating *physical evil*, or *pain*, to others, by the success of our wicked actions, God is powerful and wise to turn that to the final pleasure or advantage of the sufferers; to bring *order* out of *confusion*, and to prevent the last effects of our malice. We cannot *perplex* affairs, beyond the skill of infinite wisdom and goodness to *unravel*, to speak after our manner; and there is a curb upon us from an invisable hand, in the midst of our career. *God rules*: after which it is want of philosophy to doubt or murmur; or, it is *the ignorance of laying down premises, and then refusing the consequences.*

XXXV. As to the instance above, N<sup>o</sup> 24. of the man's shooting the bow; by far the greatest part of the motion or material action, is immediately produced by the first Mover, equally when the arrow kills an innocent person, as when it prevents an innocent person from being killed, by the death of a cruel, relentless *Aggressor*. And even in our way of conception, he produceth the material part of the effect justly and unblameably; for in either event he acts by the same *constant* and *equal law* of action; and it is the same thing as to the materiality of the effect produced, as if he had planted powers in matter to produce it, without his own immediate intervention, if that could have been done: for in all other respects it is equal, whether we say *they are planted in it, by the Creator, to co-operate with the spontaneous mover of the body, after a constant, stated manner*; or *are immediately impressed upon it, but after the same constant, stated manner still* (x). Besides, we are unjust in objecting thus, upon this consideration, that  
whereas

(x) The Reader will be pleased with the following remark made here, by a learned and ingenious person, as it contains an observation both new, I think, and solid. *Our Writers who argue from the beauty of nature, the motions and changes in the world being governed by certain stated laws, ought to shew the use of such laws, and of that constancy which in some particular cases is noxious. And this I take to be the use of it, that free agents could have no foresight or judgment without this constancy. There would be without this no choice or pursuit, because there would be no course of things.* Indeed, if we should suppose a contrary method to obtain, and pursue the consequences of that, in the view which this excellent remark opens to us; what fear and irresolution, what disappointment, confusion, and final disorder might we not apprehend in all human affairs! How much are we indebted to *Providence* for *appointing* and *keeping up* a constant natural course of things, at the same time perhaps that we are inwardly murmuring, that he doth not *change* that *course* in our particular behalf! If the course of nature, and

whereas we ascribe all the merit of a laudable action to the *spontaneous agent* alone, we find fault with the *concurring agent*; if an action unjustly designed hath its effect. In this we do not consider that the *very design* and *intention* of an evil action is itself the *evil thing*, before any effect at all is produced. But farther, if the arrow by an unsteadiness of hand, or a mistake of persons, should wound, or kill an innocent man; or if the innocent is overtaken by some inevitable calamity, where no moral agent is concerned; we are to affirm *that this could not come to pass but for the best and wisest ends*. For it is an infallible certainty, *that there exists a Being infinitely good and just*; and therefore that any creature should be *ultimately unhappy*, by the immediate agency of this Being, or in a world where the power and knowledge of this Being presides, or *worse* than another creature *not more innocent*, or than another creature *yet more guilty*, is the greatest impossibility. If we are peremptory in this case, and determine that *either there is not a God, or that he is not a just inspector of human affairs*, and for this reason, because otherwise such an innocent person would not have been indiscriminately involved in a ship-wreck, or any common calamity with profligate and wicked men; what becomes of our conclusion, if it is only suggested, that *such a person, if innocent, is made sooner happy, or if not innocent, is punished more lightly*, that is, is *made less miserable, than otherwise he would have been*? In short, there is no determining here on the side of Atheism, without supposing the point in dispute, *viz.* That there is no after state. But this only by the by, from the instance of shooting the bow, and the particular of uniting souls to bodies. We shall have occasion afterward to consider the train of objections which the Atheist musters up.

XXXVI. It will, no doubt, be objected, *That this proof of the immateriality of the soul, shews at the same time the immateriality of the souls of brutes, and of every living thing, as well as of the rational soul*; so that this either

and the stated laws of things, were to be suspended, or altered, in behalf of every particular, and according to our short-sighted views of things; what *contrarieties, absurdities, impossibilities*, must the Deity perform to please us all! We should have *heat, cold; plenty, scarcity, &c.* all at once; and the frame of nature must yield to execute our revenge. Now whatever inconvenience would happen, in complying with our unreasonable demands, to all besides our ourselves, the same would happen *to all*, if the settled course of nature were suddenly interrupted, or had no regularity in it, even though no body desired it should be thus. *So impossible is it to mend God's constitution of things!*



proves nothing, or more than should be proved. In answer to which it is freely owned, that the necessity of an immaterial substance, in brutes as well as men, is equally certain from what is said here. If we should endeavour to dissemble it; or if it were a thing that wanted to be dissembled, the Atheist would change sides, and easily prove it upon us. Probably *Cartes's* opinion that *there was nothing but matter and motion in brutes*, hath been one reason among others, why so many of late have thought it not impossible but that it might be so in men. There is indeed nothing more common to be heard than a confident assertion that *it is impossible to prove the soul to be immaterial*. And the proving that it is immaterial in brutes, must, *a fortiori*, infer that it is so in men. If the argument had only been urged against the *Cartesian* opinion, those who have extended that conclusion also to the human soul, must of course have relinquished their cause; so that more than enough is not proved. (*If truth is at all to be received, all the consequences of it are to be received; they are likewise truth.*) The immateriality of the human soul doth not fall, though the souls of brutes are at the same time immaterial; nor doth the rational soul's being *such* depend upon the brute soul's being *not such*.

XXXVII. But farther, though both are immaterial, it doth not follow that both are therefore equal, or of the same kind of immaterial *Beings*; which the objection tacitly supposes; or that there are the same reasons why the souls of brutes should subsist after they are separated from their material systems, as that the human soul should. The one's being *rational*, and the other *irrational* is certainly a *specific difference*, which argues a *difference of design* in the *Author* of these two kinds of immaterial *Beings*; unless we would say that a Being infinitely wise made specifically different *Beings*, and not for different purposes. The same reasons do not conclude a soul immortal, which conclude it immaterial; and, though the immateriality of it is not against its immortality, but rather a strong symptom of it; yet without better reasons, the conclusion would be precarious, and ill supported. We are to conclude nothing certain about the immortality of the souls of brutes, because we have not evident reasons to support such a conclusion; and we are to conclude something certain about the immortality of the human soul, because we have evident reasons to justify our so doing. This is surely a right method of philosophising. If some great Philosopher should arise, who could shew that the souls of brutes are preserved after death, for some wise purpose of the great *Author* of nature,

nature, how could this prejudice the cause of the immortality of the human Soul? If this could be done, it would as certainly infer that the human soul is immortal, as the proving the brute soul immaterial would certainly prove the human soul immaterial also. It is as far from being true that all things should be different in these two species of immaterial substance, as that all things should be the same. The Atheist takes it for granted, that the last of these cases is true; and many good men are alarmed lest the first of them should not be true: but both without just grounds. It might be possible to conceive such states of the immaterial substance in brutes, after the dissolution of their bodies, as should contradict no truth, nor infer any absurdity; and then such states must at least be not impossible. And in what worse state would the human soul be for that? Again, if it should please their Creator to annihilate them, (for otherwise it will appear by and by, that all immaterial substance must still subsist) the human soul is in never the more danger of being reduced to nothing: and I hope I shall make it appear, that an infinitely just Being could no more annihilate it at death, than an infinitely powerful Being could effect a contradiction. In fine, though they should be annihilated, we are never the less certain of being continued in our conscious, intelligent existence, after death, and through never ending eternity: and if they super-exist the dissolution of their material systems, it must be for a different purpose; a purpose as different, at least, as the rational is from the brute nature: for our common Author can do nothing but what is according to rule and proportion.

XXXVIII. As to the very lowest of living creatures, fleas, mites, &c. (a) what

(a) Mr. Locke, in his controversy with the Bishop of Worcester, cited above, says, But here I take the liberty to observe that [if] your Lordship allows brutes to have sensation, it will follow, either that God can and doth give to some parcels of matter a power of perception and thinking; or that all animals have immaterial, and consequently, according to your Lordship, immortal souls, as well as men; and to say that fleas and mites, &c. have immortal souls as well as men, will possibly be looked upon as going a great way to serve an hypothesis. Here Mr. Locke supposes, that sensation implies thinking as much as it implies perception; which is quite wrong, I conceive.

Since he wrote, others have caught the hint, and brought in the *cells in vinegar*, and other *microscopical animalcula*, to expose the immateriality of souls. But when the first surprize of this novelty is over, and we begin to look where the strength of the objection lies, it disappears. Must it not appear more wonderful to us, to work a piece of mechanism in the bounds of a mite, or other animalcule, than in the bounds of a horse or an elephant? Infinitely small things shew infinity of power, as much as infinitely great things. In this respect then these animalcula are as great instances of the wisdom and power of God, as the largest living creatures. In the next place,

what reason is there for refusing them an immaterial spontaneous mover, when we consider that the admirable structure of their little bodies is the work of infinite Wisdom, and that infinite Power vouchsafes to concur incessantly with all their spontaneous motions? Philosophy doth not countenance us in saying *that immaterial substance costs the Creator more pains in making, than matter doth; so that there should be a scarcity of it; or that it is too good to be wasted, when we see his own wisdom and power so eminently laid out, in so little room.* I shall shew in another place, that the faculty called *instinct*, is most remarkable in the lowest, most contemptible creatures; and that this *instinct* is nothing but the *immediate direction and guidance* of the Divine Wisdom, to supply the power of reason, which these creatures want. And since in the question about the immortality of the soul, the brute-soul is, on all occasions, brought in on a parity with the human, I shall there endeavour to assign the difference between the rational and brute-nature; since it already appears not to be a difference of substances, but of powers belonging to one and the same kind of substance.

place, doth not this mechanism as much require an external immaterial power (see N<sup>o</sup> 13, 14, 15 of this) as any mechanism whatsoever? And who supplies this? In the last place, they move spontaneously. The objection supposes this. Spontaneous motion is different from mechanical motion, by the terms; therefore it must require a different immaterial principle, (see N<sup>o</sup> 19, 20.) Where is the difficulty in all this? Or rather in what particular is it not demonstrative? But perhaps the *Authors* who start this objection, imagined it would be unkind not to allow these little animals to be certain *by-blows*, the *effects of chance*, or of the *natural powers of matter*? Or that *infinite power doth not reach to infinitely small things*; but that *this is a field for any bungling cause to work in*? But let us imagine the difference of circulation, and the various laws of oeconomy in the various species of these creatures, and we shall conceive of them in quite another light. To which purpose I shall here subjoin a paragraph from Dr. Keil's *Introduct. ad ver. Physic.* lect. 5. *Cum animalculum quodvis sit corpus organicum, perpendamus paulisper, quam delicatulae & subtiles esse debent partes ad ipsum constituendum, & ad vitalem actionem conservandam necessariae. Haud mehercule facile concipitur, quo pacto in tam angusto spatioso comprehendi possint; cor, quod ipsius vitae fons est, muscoli ad motum necessarii, glandulae ad liquores secernendos, ventriculus & intestina ad alimenta digerenda, & alia membra innumera sine quibus animal esse non potest. Sed cum singula memorata membra sunt etiam corpora organica, alias etiam habebunt partes ad suas actiones necessarias. Constabunt enim ex fibris, membranulis, tunicis, venis, arteriis, nervis & hisce similibus canaliculis numero fere infinitis, quorum exilitas imaginationis vires superare videtur. At his infinitè propemodum minores esse debent partes fluidi, quod per canaliculos hosce decurrit, nempe sanguis, lympba & spiritus animales, quorum in grandioribus animalibus incredibilis est subtilitas.* Is this work for any thing but infinite power! Certainly this objection is ill chosen.



### S E C T. III.

*The natural immortality of the soul shewn from its being a simple or un compounded substance ; what this immortality imports.*

AFTER what is said, it might not perhaps be improper to examine the arguments that are generally brought to shew the materiality of the soul, or the objections against its being immaterial, upon which our prejudices make us lay great stress ; for though when a thing is once proved true, we need not much concern ourselves with what is said against it, since there cannot be contrary truths ; yet (as hath been lately well observed) since objections founded upon prejudices gain easy admittance, and few words serve to make them understood, it will not be amiss to take notice of these : but this may be done with more ease and clearness a little farther on. Wherefore, that we may the better understand the nature of the human soul, let us next consider the consequences of its being a *simple or un compounded substance* ; for if it were made up of parts, as matter is, it might be contended that it could naturally be resolved into these parts again, by the action of something or other upon it : whereas if it hath no parts, or is but one single un compounded thing, we shall be satisfied in our own way, that it is liable but to one change, or casualty, viz. to be annihilated, or to be destroyed by a Being to whose power that effect is competent. In order to this, and to help us to get the better of some of our prejudices, whereby we are still applying the properties of matter to spirit, by which, in propriety we should always mean immaterial substance (a) ; I shall premise the following observations.

#### II. No

(a) Mr. Locke, in his controversy with the Bishop of Worcester mentioned above, endeavours to justify his using the word *spirit* for a thinking substance, without excluding materiality out of it, by the authority of *Virgil* and *Cicero* : where he says, — “ Whether they thought right in this [that the soul might be only a subtil matter, which might come under the name of *aura*, or *ignis*, or *ether*], I do not say ; that is not the question ; but whether they spoke properly, when they called an active thinking substance, out of which they excluded only  
O “ gross

II. No substance or being can have a natural tendency to annihilation, or to become nothing. That a being which once exists should cease to exist, is a real effect, and must be produced by a real cause: but this cause could not be planted in the nature of any substance, or Being, to become a tendency of its nature; for it could not be a free cause, otherwise it must be a Being itself, the subject of the attribute freedom, and therefore not the property of another Being; nor a necessary cause, for such a cause is only the effect of something imposing that necessity, and so no cause at all. Necessary causes and passive powers deny the thing they seem to express. This effect therefore must be the operation and efficiency of another Being *ab extra*. One of our prejudices here is, that we imagine Beings may have a natural tendency to change their nature: but then their nature would be inconsistent, and destructive of itself (b); and the same argument may be applied here to the natural state of being, in general, as was applied at N° 14. of the first section to the state of rest or motion of matter in particular; since that is but one particular case of the natural state of being. For a tendency to persevere in the same state of nature, and a tendency to change it, are contradictories, and impossible to be planted in the same subject at once: or (not to urge the contradiction) if the last prevailed, the remaining in the same state, for any given time, would be impossible. We forget the true cause of all these tendencies, *the will of God*, which it is absurd to suppose contrary to itself. The tendency in matter to persevere in the same state of rest or motion is nothing but the will of the Creator, who preserves all things in their existence, and manner of existence (c):

nor

“gross and palpable matter, *spiritus*, spirit, &c.” But with submission, I think no man ever before defended the propriety of an expression, exclusive of the truth of it, in a philosophical controversy. If the acceptation of a word is such as determines the question, without farther argument, as in this case, to justify the propriety of it then, is to make the common use of language decide in points of philosophy. If Cicero or Virgil had wrong ideas as to the immateriality of the soul, though they expressed these wrong ideas right, that doth not mend the matter. The dispute between the Bishop and Mr. Locke, was, whether matter could think, and not the classical acceptation of the word *spiritus*.

(b) The natures of things are only the ideas in the divine intellect, consistent to be made subsist together in the same subject, *extra intellectum*; but the idea of a tendency destructive of that nature (*i. e.* of those other ideas) must have been inconsistent with them; which points out to us the origin of the contradiction.

(c) *Definant jam Philosophi continuati motus exquirere causam, alia quippe agnoscenda est nulla præter primam illam, quæ non modo motum, sed res omnes in esse suo conservat; Deum scil. Opt. Max. nec*

aliâ

nor can we have recourse to another cause for the preservation of immaterial substance in its existence and manner of existence; taking manner of existence in a larger sense, (because being active it can change the state of its cogitation (*d*)). Therefore, as I said, these tendencies are originally to be ascribed to the will of God, and it is absurd to suppose them contrary. What we suppose a *tendency of nature* to a change in material things, is but the *gradual effect of an exterior cause*, or immaterial power, working a change in them, as when iron exposed to the air is gradually consumed to rust, which is mistaken for a natural tendency, because of the slowness and imperceptibleness of the operation (*e*). Another of our prejudices is, that we argue from a change of accidents of the same substance, to a change of the substance itself, (though a change of substance is improperly called a change): and because some exterior thing is still effecting these changes of accidents, in such material objects as we are most familiar with, we imagine that immaterial substance or being may have a natural tendency to decay or become nothing. But methinks we should quit this prejudice, when we see, that even this change of accidents of natural bodies is not effected without the concurrence of Almighty power.

III. *No being, though it hath power, can have such power as to annihilate itself*: for then it ought to have power to effect that it should have no power, which is contradictory; since we are forced to suppose the thing still remaining, which we suppose taken away. If a cause produceth an effect, it must have power to finish that effect; otherwise it could not be the cause of it: and in this case if it had power to finish the effect, the effect could not be finished, that power still remaining. It is therefore the same contradiction to suppose that a being should annihilate itself, as that

*aliâ ratione perseverat motus, quàm quâ continuatur corporis alicujus figura, color, aut aliæ quævis istiusmodi affectionum, quæ semper eadem permanerent, nisi vis aliqua externa eas turbaverit. Introduct. ad Ver. Physic. Lect. 11.*

(*d*) The first existence of matter, and every change in the manner of its existence, requires an immaterial Cause. And though every change of the manner of the existence of spirit, doth not immediately proceed from the power of God, being active itself in changing the state of its cogitation; yet the having received this activity shews it no less dependent on the will of the Creator, than if it were preserved in one continued state of inactivity.

(*e*) Philosophers observe this is effected by a fermentation, which, by the last section, is no natural power of matter. "For air (says Sir *Is. Newton, Opt.* p. 355.) abounds with acid vapours fit to promote fermentations, as appears by the rusting of iron and copper in it, the kindling of fire by blowing, and the beating of the heart by means of respiration.



it should create itself; namely, *that it should act when it is not*. Yet we contract a prejudice, which makes us fancy that a *Being* could put an end to itself, as when a man gives himself a deadly wound. But it is begging the question to say that a man annihilates himself in such a case; and it is from such instances only that we contract this prejudice. The strength of the man's arm doth that, which with the subsequent efficiency of other causes, brings on the end of life; which it is not allowed is the end of *Being*, more than the change of figure or position in matter is the annihilation of matter. In the present case, by supposition, no cause co-operates, besides the power of the *Being* itself; and there is no tendency to annihilation in the nature of any being without the efficiency of some other cause, by what was said just now, N° 2. But chiefly, by what is said there, it is God who preserves all things in *Being* and existence: therefore no *Being* can annihilate either itself, or any other *Being*, without it were supposed able to resist infinity of power, which constantly preserves them.

IV. It will be said, since finite *Beings* have no tendency to annihilation, there will be need of no power to preserve them in their natural state. But to this it is answered first, that any *Being* (this stone for instance) as existing this minute, hath no necessary connexion with itself, as existing the next. This is of the nature of all contingent *Beings*; every minute of their existence is independent of all the rest, and therefore *must depend upon something else*: for their existence by the terms, is not absolutely independent of all things; otherwise it would not be *contingent*, but necessary. If the existence of a *Being* this minute inferred its existence the next, it would be a physical contradiction that any thing that had ever once existed, should ever cease to exist; and *contingent existence* would be the cause of *necessary existence*; which is absurd. And secondly, this brings us, by another kind of reasoning, to what was asserted N° 2. and which is the chief answer to this objection. That the non-tendency of beings to change their state, or their tendency to persevere in their *Being* and existence, hath no other cause but the will of God; and that tendency is but this continued act of his will exerted, and taking effect. It would be absurd then to say, because the tendency of *Beings* to remain in their state of existence, supposes the constant concurrence of the will and power of God; therefore such a tendency supercedes the will and power of God in their actual preservation: and yet the objection comes just to this. We saw in the last section, when speaking of the cohesion of matter, that it is a continual power impressed, which constitutes

the solidity of it. And generally, since *to will* and *to do*, is the same thing to infinite power, *the preservation* of all things, whether material or immaterial, is the same, or equal to a *continued creation*. A continued act of the will is a continued act : a suspension of an act of the will is itself a positive act, (as will appear in the next section). And therefore the preservation of *Being*, and its annihilation, require as positive an act, as its creation.

V. These things being premised, it appears that all substance equally, as well material as immaterial, cannot cease to exist but by an effect of infinite Power. And the only remaining change it can be liable to from the agency of any second cause, is in its accidents, or such properties as are not necessary to it, as such a substance ; but which being altered, it remains still a substance with the same fundamental and specific properties it had before ; *that is*, still the same substance.

VI. All the changes of this kind, which happen to matter, are effected in it, because it is a substance compounded of parts, and again divisible into parts, each of which is a solid, extended, divisible, figured substance ; or hath *the essential properties* of the whole, of which it is a part, as much as the whole hath. For in any indivisible of matter, supposing such were possible, we can conceive no change possible : because it would imply a contradiction. It could not be changed in solidity or extension ; that would be to change it in quantity, which could only be effected by adding parts to it, which is no change in itself ; or by taking parts from it, which by supposition it hath not. It could not be changed in figure or dimensions, without a change of the position of parts, which it hath not. If it should be said, that it might be changed from rest to motion, or from motion to rest, this is no change of this indivisible considered alone, but a change of it considered with relation to something else ; to wit, other parts, the distance between which and it is changed. Even in *absolute motion* nothing is effected but a determination of the inactivity, or resistance, to one part more than another, which is no intrinsic mutation of substance or substantial properties (*f*). In short, this indivisible could undergo no change in itself,

(*f*) In absolute or real motion, the force, moment or resistance, is only determined to one side, I think, or receives a particular direction, but is not changed in quantity, unless we take it relatively, or with respect to a terminus *à quo*. By N<sup>o</sup> 12. of the first section, if we fix on such a terminus, the resistance of matter is endlessly increasable. In receding from the terminus

itself, no not from any power, but a change of substance, or annihilation, which is not a change properly speaking. If the matter of our bodies were such an indivisible, we could be affected with none of the vicissitudes we are now affected with; but our material part would be as indissoluble as now our thinking part is, which is indeed affected with the changes of the body, but without any fundamental change or alteration in its own substance.

VII. All the changes then which happen to matter, are effected in it, because it is a substance compounded of parts, and again divisible into parts, each of which is a solid, divisible, extended, figured substance, or hath the *essential properties* of the *whole* of which it is a *part*, as much as the whole hath. But surely this can never be said of *active perceptive substance* that it is compounded of parts, which are likewise *active perceptive substances*; we should then have as many different perceptions and consciousnesses as there were different parts of the soul: nor could such parts subject an active perceptive substance to mortality, or corruption, though separated; for these parts could not be other than active perceptive substances,

minus of rest, it may always receive another degree of celerity, and therefore will make another degree of resistance. This is because of the degree of resistance it made to receive that celerity. It could not make two degrees of resistance to be stopt, unless it had made two degrees of resistance to be put into that motion. So that the increase of moment supposes a previous repetition of equal resistances to equal changes. And therefore this resistance taken absolutely, is always the same, as much as the inactivity is, as in N<sup>o</sup> 13. of that section. However, in case one should be tenacious of the contrary, not much depends on this. But having mentioned moment as an affection of real motion in matter, let me be permitted to explain, and restrain a little, what Mr. *Locke* hath advanced concerning the motion of all finite spirits. In Book 2. chap. 23. sect. 17 and 18. having enumerated the primary ideas peculiar to *body* and *spirit*, as contra-distinguished to each other, he makes *mobility* common to them both; which he illustrates and defends, sect. 19, 20 and 21. He hath before ascribed *motivity*, or a power of putting body into motion by thought, to spirit, as one of the ideas peculiar to it; so that by *mobility* he seems to mean a capacity in spirit of being moved, by something *ab extra*, and not the power of moving, which is included in *motivity*; especially since he makes mobility common to both matter and spirit. Which, with submission, I think is very wrong, and tends to confound the natures of the two substances he would distinguish. We say a thing is moveable, which can be moved by a force applied *ab extra*: thus a *table* or a *chair* is moveable. And consequently we call a thing immoveable, which no force applied, or that we can apply, is able to move: thus a *house* or a *mountain* is said to be immoveable. Now a substance that no way impedes motion, but effects it, can with no propriety, I think, have the capacity of mobility ascribed to it, as it is ascribed to body, a substance which resists motion, and no way effects it, and therefore wants an external mover. To make spirit material, and so at once both



stances, as much as the whole is whose parts they are, any more than the parts of matter could be unsolid or unextended. Parts of any substance must be of the same substance, by the terms, and of the same nature with the whole, of which they are parts; differing only from the whole in more or less, but not in nature and fundamental properties; otherwise *the substance of these parts* would not be the same with that of the whole: or they would be parts of the same substance, and not of the same substance, which is contradictory. This is implied, I say, by the terms, when we say *parts of the same substance*; for that is the same substance considered as having parts in it; where, by the supposition, the substance, and therefore the substantial properties in the parts, are the same as in the whole. That which adds weight to this reasoning is, that as it appeared in the last *Section*, that activity and perceptivity *can belong only to immaterial substance*; so it shall be shewn in the next, *that they must always belong to it*, or are inseparable from it. Therefore, if this substance hath parts, every part must be active and perceptive. And the actual separation of such

both to cause and hinder motion, is a plain contradiction. Spirit, it is true, stops motion; but it is by the same *living efficacy*, by which it begins it; not by a *deadness and resistance in it self to be moved*. Besides, a spirit when it moves, hath no *moment*, as body hath, proceeding from its *vis inertiae*. It cannot be said to resist being brought from motion to rest, or from rest to motion; since it effects these changes. If it moved circularly, it could have no centrifugal force. When a man walks, his spirit moves his body; but is not moved by it. If both were moved, there would be no mover. Nay, even in the journey betwixt *London* and *Oxford*, where the man's spirit is not the mover, but the horses move the coach, his body and all, his spirit doth not impede the motion, or *make the draught heavier*; or is not properly a mover. So that, in effect, mobility doth not belong in common both to body and spirit. Nor farther, can motion belong to both, but in very different senses. Mr. *Locke* says, sect. 19. —“ For having no other idea of motion, but change of distance with other beings that are considered as at rest; and finding that spirits, &c.” It is true, spirits change place, and motion in this sense is competent to all finite spirits. But in this motion they are not *moved* but *movers*; which is the distinction endeavoured to be *confounded*. Sceptical people conclude from this, that whatever moves is material. But it will not follow that whatever moves, as a mover, is material, and has the relations of matter. *For in the idea of the motion of body, a moved, and not a mover is implied*; and the affections of *moment, resistance, and tendency to move in the same straight and uniform direction*, are necessarily included. Were there but one body in the Universe, these affections would inseparably attend its motion; and yet then the relation of distance would never shew motion. The distinction of *ubi* and *in loco*, which Mr. *Locke* observes, sect. 21. to be of little use to our conception, was introduced probably, to signify that body and spirit occupy space after a different manner; though we cannot conceive that difference of manner.

parts

parts could never be the corruption, or death, of active, perceptive, or living substance, but rather the generation of many.

VIII. A living substance could not consist of other living substances, as a dead substance may be the aggregate of other dead substances, upon this farther account. *Deadness is a mere negation, and doth not want a principle of individuality*, to restrain and appropriate it to any part of the aggregate. It would be absurd to say, the deadness of every part is its own particular, or individual deadness, which can be ascribed to no other part; and the deadness of the whole is likewise its individual deadness, which must be different from the deadness of all the parts. It would be absurd, I say, to speak thus. But activity being a *positive power*, wants a principle of individuality; or the activity of any part, must as certainly be the power of that part, and not of another, as its substance is the substance of it only, and not the substance of another. Or if we consider the activity of any part as a property, it must have that part, in exclusion of all others, as the subject of its inhesion. And we may reason the same way with the perceptivity. If every part were perceptive, nothing could hinder the perceptions from being different, and as many as the parts. Thus necessarily there would be a confusion and multiplicity of different activities and perceptivities in active perceptive substances that consisted of other active perceptive parts. And if we can stop at these parts, of which we have been speaking, it is well: but if we are forced to allow of active perceptive substances that do not consist of parts; why should we contend at all *for parts* in such substances from the beginning? And if we contend *for parts* at all, what reason can there be given for stopping at these parts, and not contending for other and other parts *in infinitum*, which will make the absurdity monstrous? And in either case, the activity and perceptivity *of the whole* could never be one simple and un compounded activity and perceptivity; or be individual *to it*, in opposition *to the parts*: but contrarily, the activity and perceptivity *of each part* would have its principle of individuality *in that part*, in opposition *to the whole*; and all together, they would appear various, confused, and divided; and *one individual living being* could never result from them. If it should be said, that the activity and perceptivity *of each part* would not be different from that of *another*; it is as if we should say, the subjects of inhesion of these properties would not be different the one from the other, or that these parts are but one and the same part, or that the soul is not made up of parts, or *is indivisible*.

IX. The parts of active, perceptive substance, if it could have any, must be also active and perceptive from this consideration, that to suppose it otherwise is to allow *that activity and perceptivity may result from the joining together dead inert parts*; which is the same contradiction, whether we allow it in material or immaterial substance: for it is to make the effect perfecter than the cause, by supposing perceptivity and spontaneity both of motion and thought, and reason itself, to arise from the mere addition, or junction, of things dead and inert, to other things equally dead and inert. We shall see, when we come again to speak of Mr. Locke's *superadded property* of life, sense, and spontaneous motion, that it could have no subject of inherence, besides the mere junction of dead parts to dead parts: but that *junction* or *addition*, which is itself a property, should be the subject of another property, is against sense and reason. Therefore again, if an active perceptive substance can have parts, they must of necessity be active and perceptive. And if these parts are indivisible, we are at length come to indivisible living substances; and as such, not liable to any change except annihilation. But he who contends, that living substance must be compounded of parts, cannot consistently with himself be supposed to stop any where, but must rather assert that these parts are still divisible into other parts: in which case he must likewise say, that each part, in any division, or subdivision, is active and perceptive, for the reason just now assigned, *viz.* because otherwise the whole could not be active and perceptive. This would be to multiply living beings endlessly, instead of shewing that they are mortal and corruptible. Nor could he make an *individual living soul* out of a composition of these. The consciousnesses resulting from the activity and perceptivity of each part would be various and infinite. From what is already said, we cannot be at a loss for an answer, if any one should be so humourful as to say, that active perceptive substance may be compounded of dissimilar parts, some of which only are active, and others inert: for the first sort only, excluding the last, would be active substance.

X. Thus a living substance made up of dead parts is a contradiction; and a living substance made up of living parts, is not one living substance, but as many distinct living substances, as there are distinct living parts in it. And indeed this composition and divisibility of living substance must infer the same consequences, as if we supposed matter a thinking



thinking living substance : the same multiplicity, or rather infinite variety of consciousness and perception, must be as well in the one case as the other. But this is not only false, as plainly appears from the simplicity of our consciousness and perception, but cannot possibly be of any service to those who assert the soul's mortality ; for since every part must be a living part into which either substance, be it matter or spirit, is divisible, because a living whole could never be made up out of any number of dead parts. They must necessarily of course by this supposed divisibility, multiply living beings without end, or at last stop at indivisible living substances, which are liable to no essential alteration, and can never cease to be by any other means than annihilation. And from hence it follows, that parts and divisibility are not affections consistent with active perceptive substance, which must be one, and simple, without composition. *Divisibility* is such an affection of substance, as shews on the one hand, that matter, because divisible, cannot think, or be a living substance ; and on the other, that spiritual substance, because thinking, cannot be divisible, or have parts.

XI. The human soul then, having no parts, must be indissoluble in its nature, by any thing that hath not power to destroy or annihilate it. And since it hath not a natural tendency to annihilation, nor a power to annihilate itself, nor can be annihilated by any *Being* finitely powerful only ; without an immediate act of the omnipotent Creator to annihilate it, *it must endlessly abide an active perceptive substance, without either fear or hopes of dying through all eternity.* Which is, in other words, to be immortal as to the agency of all natural, or second causes ; *i. e.* naturally immortal. And this is the immortality which the Atheist, and really in the general what all men insist most upon. We insist to have it proved in our own way ; and demand that it may be shewn immaterial, simple and un compounded in its nature, as a pledge and security that it is never to die. *Lucretius* places the mortality of it in its being material ; and when he imagines he hath proved that, he adds, as the criterion of immortality, that such a substance must be simple without parts, because a change or loss of parts is the death of that thing (g). It is true, the immateriality

(g) *At neque transferri sibi parteis, nec tribui vult,  
Immortale quod est quicquam : nec diffuere hilum ;  
Nam quodcunque suis mutatum finibus exit,*

materiality of the soul is a satisfying pleasant contemplation, especially when we perceive that it is impossible that ever matter can become active or percipient, by any power, or in any the least degree; and in consequence of this discovery come to the knowledge of several other most weighty and useful truths: but were there not more direct and proper proofs, the endless duration of the human soul would remain precarious. The Atheist artfully seeks the least direct and remotest kind of proof; both because he thinks it hardest to be given, and because, when given, it proves not enough; for if that only could be given, he would not want other subterfuges, the last of which I shall endeavour to prevent in the next section. Indeed the necessary perfections of the Deity, which stand engaged for, and demand our appearance in a second period; and the nature of our rational pleasures and desires, which shew that we were designed by an infinitely rational Being for endless existence, are the things that give the sanction of demonstration to the immortality of the soul. No very great stress could else be laid upon the simplicity or divisibility of its substance; since surely we may say, it would be as easy for Omnipotence to destroy a simple substance, as for second causes to dissolve a compounded one. Let it be considered, that immateriality is as certainly competent to the souls of brutes, as of men: but the arguments proving the last immortal, from the rational nature, and the necessary perfections of the Deity, are altogether incompetent to them. And it hath been the constant endeavour of the Sceptic to shew a parity, and run a parallel, between these two species (b). Besides, from what hath been said in the last

*Continuò hoc mors est illius quod fuit ante.*

Lib. 3. ver. 516.

And after at ver. 807. he says,

*Præterea quæcunque manent æterna, necesse 'st,  
Aut quia sunt solido cum corpore, respuere iclus,—  
Aut ideo durare ætatem posse per omnem,  
Plagarum quia sunt expertia; sicut inane 'st,  
Quod manet intactum, neque ab iclu fungitur bilum.*

(b) And many good men (as was said in the end of the last section) are needlessly terrified lest every thing should not be different in these two species; hence they fight against the immateriality of brute-souls, as the most dreadful phenomenon philosophy could discover. Thus a learned and pious Author (see the Book called *The procedure, extent, and limits of human Understanding*, p. 173, 174.) says, "They who hold sensitive perception in brutes to be an argument of the immateriality of their souls, find themselves under a necessity of allowing those souls

last section, it is plain, that even compounded, or material substances, are not dissolved, and much less could they be destroyed, without the immediate

“to be naturally immortal likewise: and they are so embarrassed in thinking how to dispose of those irrational immortal souls after the dissolution of their bodies, and what sort of immortality to conceive for them, that they imagine them all to return to the great soul or spirit of the world; or by a metempsychosis to pass into the bodies of succeeding animals; and then when they have done their work, at the end of the world, they are to be discharged out of Being, and again reduced to their primitive nothing.” Let me ask, if this be a good argument, that we are not to allow brutes to be actuated by an immaterial substance (though reason evinces it) because we cannot tell how the Creator disposes of these souls, after the dissolution of their bodies? *Why should any man embarrass himself about this?* Cannot the thing be done without his contrivance? Or when their little bodies were formed with such inexpressible art and power, was this point left to the determination of Philosophers? Here it is forgot that by natural immortality, no more can be meant, than that a being should exist as long as God doth not extinguish it; or as long as he supports and preserves it: and thus there’s no being but what is naturally immortal. Even our bodies might be thus immortal, God so willing it. Nay, otherwise there is no being at all but what is naturally mortal. By natural immortality cannot be meant that any being of itself, and abstracting from the will and concurrence of God, would remain for ever. No being is thus immortal. How absurd is it, when all immortality is founded on the will and design of God, to seek for a demonstration of it in the nature of the created Being itself!

The Author continues, “But if these souls are once granted to be immaterial, it is utterly inconceivable that they should not naturally have the same immortality with those which are human; since we cannot with any sense or consistency distinguish two different kinds of immortality for created spirits. If the soul of brutes is immortal, that cannot, when separated, be thought to remain altogether in a state of utter inactivity, and insensibility, which communicated sense and activity to matter while in conjunction with it. And if so, they must be sensible of happiness or misery; and, in some degree, liable to rewards and punishments as eternal as their souls.” Here let me observe, that *the human soul being rational, and the brute soul not, the one a moral agent, and the other not*, is the foundation of a very consistent and solid distinction, I conceive, between the one and the other, as to immortality; so far is it from being utterly inconceivable! Here immortality seems wholly founded upon immateriality, which is extremely wrong. Besides, an agent not moral, though capable of pleasure or pain, is not capable of rewards and punishments, by the very terms, I suppose. Moreover, brutes have not the noblest kind of activity, even here, in a state of union; viz. the command over their past perceptions; and so this Author cannot argue for that species of activity in their soul when separated. That which communicated activity to matter when in conjunction with it, cannot indeed be utterly, nor any way, inactive, when separated from it. But if this be so with respect to the brute soul; why is it all along said with respect to the human soul by this Author, *that thought and perception is the joint action of matter and spirit in essential union*, as he chuses to express it? He who allows *thought*, to be the action, or effect of matter (though but as a partial cause, or co-efficient) will hardly be able to prove the necessary activity of separate spirits. He concludes, “What heightens the absurdity of this way of thinking



diate power of God : and *natural agency*, or *the natural powers of matter*, is (like chance) only a name for our ignorance, or at least for our inattention

"thinking is, that in imagining the souls of brutes to be immaterial, men must necessarily distinguish a great variety of them both in nature and degree; one sort for birds, another for beasts, and another for fishes. And these must be all subdivided again into very different species of immaterial souls, according to the different sorts there are under each of these general heads. Nay, every fly and insect must on this supposition have some sort of immaterial soul, even down to the cheese-mite; and what is yet more absurd is, that there must be an infinite variety of immortalities imagined to suit the rank and condition of every individual, living, sensible creature." No certainly (say I) not one species of immortality needs be imagined, but all left to the wisdom and power of the Creator, who, as hath been observed before, doth not disdain to manifest the wonders of his knowledge and power in the narrow bounds of these insect-bodies, nay, to actuate their surprizing mechanism continually. We are not so much as certain of their immortality; for the immateriality, from which it is here inferred, is not conclusive; unless this Author shews how. And when he hath done that, he will have done no harm to philosophy. Lastly, why is the absurdity so much heightened by different species of immaterial souls, more than by different species of material bodies? There is really no absurdity here but this, that we chalk out a method for Omnipotence; and then reckon every deviation from that method absurd; and so, if matter of fact did not convince us, we might prove the existence of so many different species of material bodies impossible. What is here said to heighten the absurdity, *viz.* that men must distinguish a great variety of immaterial souls both in nature and degree, for insects, fishes, birds and beasts, ought rather perhaps to be looked upon as a very great beauty of the creation, and that which shews *the rising scale of immaterial beings maintained*. It would be a wide gap, if there were nothing between dead matter and the *human soul*; when we see such a *gradation* of workmanship and perfection maintained from rude, unformed earth, through all the species of plants and animals, up to the *human body*. And since the scale of immaterial Beings is thus carried up to the human soul, it cannot certainly end there.

Another late Author, I think, speaks more rationally, (Dr. Thomas Burnet's *Demonstration*, &c. p. 92) — "Hence, says he, it will follow, by necessary consequence, that every rational, sensible, and living creature must be endued with some immaterial principle, which is the cause of all their rational, sensible, or animal operations, &c." And below, — "Thus much we may say with safety, that it is not inconsistent with reason, that there may be several degrees and orders of immaterial beings, with different powers and faculties, according to their different ends; and that such of these as are made to actuate bodies, may be put into different bodies, according to their different capacities; and when the immaterial beings are separated from these bodies, so that the bodies are dead, it is not inconsistent to imagine, that they may transmigrate into other bodies, and when they have finished that course they were made for, they may either at last be annihilated, or if they are capable of any reward, God may have provided proper recompences for them, according to their several natures and capacities. There is nothing in all this but what is reasonable." Now if even we can conceive more ways possible, and not inconsistent, how they may be disposed of; where is the absurdity

tention. If then, without his act, a hair could not fall from our head, which is true in a literal and physical sense; our souls, though compounded, must endure for ever, without his act to dissolve them.

absurdity consequent upon allowing them to be immaterial? *Though*, as this last Author well observes a little before, *it is none of our business to determine what becomes of them after death.*

We should never dissemble any truth for fear of its consequences. It is directly impossible that truth should have any bad consequences. The things we are afraid of may be but our own particular prejudices; and I think it is so in the present case, with respect to the immateriality of the brute soul. Besides, if we deny these to be immaterial, we deny the most convincing argument for the immateriality of the human soul, taken from the necessary inactivity of matter. And thus this learned and pious Author, while he is zealous to establish the immortality of the soul, because of its being immaterial, goes in effect a great way to deny that very immateriality; and thus seems to defeat his own design. The sceptick, though he is never consistent with himself, is yet very clear-sighted to discover these inconsistencies in his Adversaries, and fails not to improve them to his own purposes.

## S E C T. IV.

*That the soul after death is not in a state of insensibility, torpor, or deadness; but must still remain an active living being, when separated from the body. The controversy between Mr. Locke, and his adversaries considered, whether the soul thinks always, &c.*

**W**E shall still see farther into the nature of the human soul, and be the better able to deal with sceptical objections; if we next examine, whether it is necessarily active and perceptive, so that activity and perceptivity are inseparable from it. This hath been asserted above, at N<sup>o</sup> 7. of the last section, where the argument in part depends on the proof of it: and though it is but the just consequence of what is already said; yet since we oftner reflect upon the seeming state of inactivity and imperceptivity, which the soul is successively thrown into, while joined to the body, and rather draw our guesses about its power and life in a state of separation, from these, than conclude from just reasoning

soning concerning the nature of such a substance ; it will be necessary to be particular in this point. And lest an ambiguous use of words, not importing precisely the same thing, should perplex this matter, it is to be observed, that by *activity* and *perceptivity*, can only properly be meant, a *power* of acting and a *capacity* of perceiving, (or let both these be called sometimes powers, to save words) ; and by being active and perceptive, is meant the exercise of these powers, or real action and perception : though perhaps this distinction hath not been exactly observed before, where it was conceived nothing depended upon it. And first let us consider, whether the soul hath the powers themselves, in a state of separation ; and, if it hath, whether it then exercises them ; and lastly, whether it necessarily exercises them then, or cannot be *not-active* and *not-percipient*, so to speak, when either entirely separated from matter, or joined to a system of matter always rightly disposed.

II. Now that a substance having the power of action, while joined to another dead substance, as the soul hath while joined to the body, by what is said, sect. 2. should only have this power while joined to that dead substance, and be deprived of it when separated from that, includes this plain contradiction, that a substance having (separately) no power to act, by being joined to another substance, having also no power to act, (which is true of the body universally) acquires a power of action, and exercises that power. Which is the same thing as to say that this power is an effect, and yet of nothing ; *for the uniting together of two powerless substances can never be the cause of this power*. It will be needless to reply, that two inactive sorts of matter, or liquors, by being united, or mixed, will act, stir, or ferment ; since it hath been shewn above, (sect. 1. N<sup>o</sup> 14, 15, &c. and sect. 2. N<sup>o</sup> 3, 4, 5, &c.) that instances of this kind are the effect of something not matter, an immaterial power immediately impressed. The mutual action of the particles on each other in all such instances, shews their inertness, or resistance to a change of state, and an *inert active* particle of matter is a glaring contradiction. Besides that in all such cases, a prodigious force is exerted by the least particles, which is directly against the possibility of their being the mechanical cause of such force themselves, as hath at large been shewn (a). Besides, there is no arguing

(a) Let the following instances be considered in this light (Sir *I. Newton's Opticks*, p. 352.)

And when water and oil of vitriol poured successively into the same vessel grow very hot in  
" the



arguing for the possibility of a contradiction, such as *that two powerless substances should beget power between them by being united*. If two substances, both without power by supposition, when separate, should, by their union, beget power, it would be no longer impossible for matter to think; for the inactive parts of the same substance might as well become active by being joined, as two different substances both inactive. It is the want of power in the things themselves that makes the contradiction, not their diversity. How surprising then is our general prejudice and inattention! Though power is the perfectest and most precious thing in the world, and nothing could be a cause without it, nothing could make up the loss of it, if it were deficient; yet we think nothing easier to be found, or to be supplied! We allow, for instance, that two dead substances may procreate this essence of nature (so to call it) between them! And what wonder is it then, if we turn Atheists and Sceptics; committing such an outrageous violence on our reason; on truth! It is what is called a circle in reasoning, and a circle of causation, to make the body, that lives by the soul, the cause of life to the soul (b): and it is no less an

“the mixing, does not this heat argue a great motion in the parts of the liquors? And does not  
 “this motion argue that the parts of the two liquors in mixing coalesce with violence, and by  
 “consequence rush towards one another with an accelerated motion? And when Aqua fortis or  
 “spirit of vitriol poured upon filings of iron, dissolves the filings with a great heat and ebul-  
 “lition, is not this heat and ebullition effected by a violent motion of the parts, and does  
 “not that motion argue that the acid parts of the liquor rush towards the parts of the metal  
 “with violence, and run forcibly into its pores, till they get between its outmost particles, and  
 “the main mass of the metal, and surrounding those particles loosen them from the main mass,  
 “and set them at liberty to float off into the water?” To read this lively description, it would  
 appear that *these small particles* set about their work, like so many *little engineers*, and demolish one  
 of the hardest metals we know, which the grinding between solid rocks could never perform. It  
 is even obvious to common sense, whatever hath been thought hitherto, that it is impossible this  
 should be the effect of sluggish things, imperceptible for their littleness, without an immate-  
 rial power exerted in them. If they perform this by moment or force, it is plain they recd  
 the impression of it: if they are attracted at a distance, it is the demonstrable effect of immate-  
 rial power. See the last part of the note (x) N° 11. sect. 2.

(b) This argument is set in a fair and true light, by Cyrus in his dying speech to his sons, (apud Xenoph.) “Ουτοι ἴγωγε, ὦ παῖδες, (says he) οὐδὲ τοῦτο πάποτε ἐκείνη, ὡς ἡ ψυχὴ τῶς μὲν αὐτῷ θνητῷ σώματι ἦ, ζῇ· ὅταν ᾗ ταύτῃ ἀπὸ λαλῆς, τίθεται. Ἰὼν δὲ ὅτι τὰ θνητὰ σώματα, ὅσα αὐτῷ αὐτοῖς χροῖον ἢ ἡ ψυχῇ, ζῶντα παύεται: οὐδὲ γὰρ ὅπως ἄφρον ἔσται ἡ ψυχῇ, ἐκείνη τοῦ ἀφρονος σώματος διχα γίνεσθαι, οὐδὲ τοῦτο πίπισμαι. Ἀλλ’ ὅταν ἀκρατος καὶ καθαρὸς ὁ νοῦς ἐκείνη, τότε καὶ φρονιμώτατον εἶδος αὐτὸν εἶναι. κ. τ. λ. Both these arguments ought to be got by heart. The whole speech is divine.

absurdity to make them mutually the cause of life and thought to each other. Wherefore we must say, that the soul hath the power of action, when not united to the body ; or after it is separated from it.

III. This truth may be also made appear thus. Since it hath been shewn that matter is a dead substance in all respects, it follows that immaterial substance, or the soul, is the *only thing* in us that hath active power. And since it hath active power, that power must inhere in it, as in its subject ; or the power must belong to the soul, *as a property of its nature*. It cannot belong to the soul as a mere accident ; for (once more) power cannot be produced by accident, (or a Being cannot be endued with power by accident ; ) otherwise we shall never be able to stop any where ; all power might be thus produced by accident, and we must give up the *principles of reasoning*. And since *active power* must belong to the soul, as a property of its nature, that property cannot be separated from it ; without destroying its nature altogether. For certainly power is the greatest perfection of any Being as the want of power is the greatest imperfection. And a Being cannot be deprived of the greatest perfection of its nature, without having its nature altogether destroyed. Thus active power could no more be separated from the soul, without an act of Omnipotence to destroy its nature, than solidity (or *inactivity*) could be separated from matter, without an act of Omnipotence to destroy the nature of matter. And a man cannot demand a stronger proof of this point in reason and philosophy ; for we cannot go beyond the *natures of things* ; or beyond *that power* which is the origin of the natures of things, without demanding that the soul itself should be independent. All that men want is to be satisfied that power belongs to the nature of the soul itself, in opposition to its belonging to matter. And indeed it is absolutely necessary that, as one species of substance [matter] is utterly inactive, by its nature and constitution ; so another species of it [spirit] should have activity and power, by its nature and constitution. This, I say, is absolutely necessary ; otherwise *we should make activity and power a mere accident in nature*, which is prodigiously absurd. Wherefore we must say (as before) that the soul hath the power of action, when not united to the body ; or after it is separated from it.

IV. If the soul hath the power of action when not united to the body, it must certainly have the capacity of perceiving then also: for to be active, without being percipient of the action, is to be active, not from an *internal principle*, or the power of action, but from *mechanical necessity*, imposed by something from without. To be active implies the *will* to act. If any thing acts without willing the action, it either acts against its will, and then it is a percipient conscious *Being*; though rather forced than willing, in this case: or if it cannot have will either for or against the action, it is a *mechanical instrument* of action only, and no agent. Indeed activity imports to be living, and life without perception is not to be conceived: so that activity includes perceptivity in itself; and whatever necessity there is for the soul's being active in a separate state, the same there is also for its being percipient then (c).

V. But farther, if the soul hath the power of action in a state of separation, we must say that it hath it *always*, and without interruption, since it hath it *in itself*, and independent of matter: nor can any the least shadow of reason be conceived, why it should have it at one time, and not at another; or become endued with the power of action by fits and starts. And indeed, though the exercise of the powers of activity and perceptivity may be frequently interrupted, by the indisposition of the body, with which the soul is closely united; yet it is impossible that it should at any time be without *the powers themselves*, even in a state of union with the body; or so be, at any time, that it could not act and perceive, if the indisposition of the body were taken off: for that is meant by having the power, but not the exercise of it. However, let us suppose that it were so. If the soul at any time, while it is united to matter, were in a state of total inactivity and imperceptivity, it would be in a

(c) We see some inferior creatures, that do not change place, almost quite divested of active power, whose perception is yet indefinited. And if we will reason from our own experience, our active power is much more liable to be impaired, than our perceptive capacity. If we cannot have activity or lay it aside, at our pleasure, as will still appear more plain in going on; common sense dictates to us, that it is still less in our power to have a capacity or lay it aside, at pleasure. Perception is often more intense, or heightened, where the active power is weakened, with respect to our bodies; and because it is weakened, as in a gouty limb. In short, the very lowest kind of life seems to consist in the perceptive capacity: so that we can never imagine this removed from a living Being. These several considerations may help us to overcome our prejudices in this particular.

state



state of *deadness*, as much as matter itself, which never had, and never can have these powers; and it would be impossible for it to recover itself out of such a state; just as it is impossible for any thing that never had life, to make itself living. If it could recover itself, it must be by an act of the will, *i. e.* it must will its own recovery: but this is plainly contradictory; for that would infer that it was previously recovered, since it had the power of willing, that is, of action. Nor could it recover itself without an act of the will; for recovering itself, by the terms, ought to be its own act: but to act without willing the action, is not to act, as was shewn just now. In a word, to recover itself, is to exert the power it is supposed to want. And as it could not recover itself from this state of deadness, so neither could it be recovered from it by the dead matter of the body, which is the only refuge our prejudices can have recourse to, for kindling up new life in the soul. This would be still to incur the former contradiction of supposing *two powerless substances to procreate between them the power of action*. It is in itself the most express contradiction, that one dead substance should make another dead substance living. And there is no other cause here comes in question, on the Sceptic's supposition, besides two dead substances. To call in the aid of a *creating power*, to refurnish the soul with life, would be to give up his plea. Every thing must be contrary then to what he contends for. If then at any time the soul, while united to matter, were in a state of *total* inactivity and imperceptivity, it would be in a state of *final* inactivity and imperceptivity, and the creature would be dead in all senses. Therefore we must say that in the time of the deepest sleep, or the greatest bodily indisposition, the soul retains the powers of action and perception, as much as when it exercises them, or is really active and percipient. And if this be so while the soul is united to dead matter, which so far affects it, as to impede the exercise of these powers; it must be so *a fortiori*, in a state of separation. Wherefore, as before we were forced to own, that activity and perceptivity belonged only to immaterial substance; so now we must own that *they belong always to it, or are inseparable from it*.

VI. Since the soul hath the power of activity, and the capacity of perceptivity, in a state of separation from matter, it must also exercise that power, or be really active, and really percipient in that state. For first, as to *activity*; to give the soul a power of action always, and to deny it the

exercise of that power always, unless it be united to dead matter, is to deny it the power of action, unless it be thus united to dead matter; which is to make this power the effect of its being united to dead matter; or else it is trifling about words, to give it the power of action, and yet make it want *another power* to exercise that power. At that rate, it must have a third power to exercise the second; and so on. If it hath the power in a state of separation, but never exerts any action; it must be either from defect of power, or defect of will. To say that it is from defect of power, is a contradiction in terms: it hath been shewn to have it always. If it be said, that it doth not exercise the power for want of will, it must *will* the not exercising it; which is also a contradiction in terms: for this very willing (or rather nilling) is exercising it; since *to will* implies both action and perception. And it cannot be said that it doth not *will* at all, for or against the exercising it: for a Being that doth not exert an action, and yet hath the power at all times, must be free to exert it, or not. But that a free Being should do one of two things, about which its freedom is conversant, without an act of the will, is against the nature of freedom. Exercising freedom without willing, is as much as to say, exercising it mechanically, necessarily, or without freedom; which is contradictory. Wherefore the soul really acts, sometimes at least, in a state of separation, as was asserted. As to the *capacity of perceiving*, the conclusion is still more plain. We have this capacity at all times; and are really percipient sometimes, because active. In perceiving we are purely necessary and passive, or it is not in a living Being's power to become impercipient at pleasure, more than to become dead at pleasure; perception is the very lowest state of living. Wherefore (abstracting from all impediments and obstructions, which are removed in a state of separation) we cannot conceive perceptivity to consist in the *bare capacity*, without the creature's being actually and indefinitely percipient.

VII. Farther therefore, the soul not only acts and perceives sometimes, in a state of separation from the body, but *it always acts and perceives in that state*: or, such is the nature of active perceptive substance, that it cannot not act and perceive in that state. The reasons for this assertion (besides what hath been just now said concerning perceptivity) are, first, That we find it is under this necessity, even while united to the body, if the body is rightly disposed. It is not in a waking man's power to banish action and perception from him. This would make strange work in the

world (d). And the more he endeavours to do it, the more will he defeat his own design. The only way for him to accomplish this, is to render his body indisposed, by fatigue, liquor, or some other method. It is easy to observe, and shall be shewn when we come to enquire into the pains and pleasures of the body, that we cannot command sleep at our pleasure; supposing it for the present to be an inactive impercipient state of existence, though it will appear below, N° 23. that we cannot be sure that ever it is such. We must wait till the body hath run itself into disorder, or we must industriously procure it disorder. Since then the soul is under a necessity of being active and percipient, when the body is rightly disposed; it follows, that if the body were always thus disposed, it should be always under that necessity: or, that it should always be active and percipient, even while united to dead matter, if this system of matter were liable to no irregularity and disorder. Now, since the body cannot give it less impediment in acting and perceiving, even when best disposed, than *none at all*; and since, when separated from the body, it hath just this degree of impediment from it, *viz.* none at all; it follows that it must be then under an equal necessity at least, of acting and perceiving, as when, in a state of union with the body, the body is best disposed. If it should be said that, besides the advantage of having no impediment at all from the body, in acting and perceiving, it must have another, *that of having its perceptivity excited, by the action of something external to it*; otherwise it would not be percipient then; and that the matter of the body, when rightly disposed, doth this by acting upon it: it is answered, that this is still to suppose it *not percipient in itself*, but rendered such by being united to dead matter, which is the *old contradiction* still recurring. And this principle (to take off an objection here by the by) shews that *Lucretius's* great argument is an unphilosophical mistake, when he says separate spirits could not perceive without the help of the five senses (e). For to make the ministry of material organs necessary (universally in a state

(d) To become percipient, or impercipient, at pleasure, would be an effect equal to annihilating, or re-creating again, the conscious Being arbitrarily. We might then elude punishment from human laws, and act what disorders we listed; nay sport with Omnipotence itself, in a conscious, or unconscious existence. This is inconsistent with our being dependent creatures, and moral agents; and lets us see the wisdom, and necessity, of ordering things otherwise.

(e) *Præterea, si immortalis natura animæ sit,  
Et sentire potest, secreta à corpore nostro;  
Quinque (ut opinor) eam faciendum sit sensibus auctam:*

*Nec*



state of separation) to the perceiving external objects, is to make the perceiving them depend upon matter itself: or to make one dead substance become percipient by the help of another dead substance. Not to mention that when he wrote his philosophical solution of the phænomenon of dreaming, which takes up one whole book of six, he might have remembered that we are then percipient, when the senses are disabled and shut up. And elsewhere he hath very expressly observed, that when we are without all sense from the body, we are nevertheless still percipient (*f*). Besides, this supposition is manifestly false in fact; for the soul is percipient of its own internal actions, as in N<sup>o</sup> 4. and it acts thus internally, without being excited to such action by the body, of which we have undeniable experience: if it were otherwise, it would still want the power of action, or receive it from matter; which is an absurdity that always returns upon us. In the last paragraph an absolute necessity hath been shewn, why it should act in a state of separation, sometimes at least, so that it is percipient also without the means of the body, contrary to the supposition on which the objection proceeds. By the power of reflexion it is both the percipient,

*Nec ratione aliâ nosmet proponere nobis  
 Possumus infernas animas Acherunte vagare.  
 Pictores itaque, & scriptorum sæcla priora  
 Sic animas introduxerunt sensibus auctas.  
 At neque seorsum oculi, neque nares, nec manus ipsa  
 Esse potest animâ; neque seorsum lingua, nec aures  
 Absque animâ per se possunt sentire; nec esse.*

Lib. 3. ver. 624.

This argument in plain english is, I think, if the soul can perceive *without body or matter*, it must have five *material organs*: a contradiction, which if he cannot fix upon his adversaries, must return on his method of reasoning. And when considered any way, it is only an indirect method of asserting, that matter, a dead inactive substance, lives and acts, by the help of organs of the same substance. What he enforces from the *Painters* and *Poets*, doth not bring his argument nearer a conclusion. He disproves nothing, because a *Painter* could not draw the portraiture of a separate spirit; or because the *Poets* describe it analogous to our present state; or because the eyes, tongue, ears, could not perceive without the soul. Our modern sceptics would do well to find out the strength of this objection, or disown it; as also to reconcile it with the following citation.

(*f*) *Præterea molli somno cùm dedita membra,  
 Effusumque jacet sine sensu corpus onustum:  
 Est aliud tamen in nobis, quod tempore in illis  
 Multimodis agitur; & omneis accipit in se  
 Lætitiæ motus, & curas cordis inaneis.*

Ibid. ver. 113:

and

and affords the object of perception to itself, as its former perceptions become the object of subsequent ones (g). The argument from the beginning of the second paragraph is universal and absolute, as being drawn from the nature of both substances separately: and therefore, once again, it doth not stand in need of the action of external matter upon it to become percipient.

VIII. But secondly, the necessity of our being always active and percipient in a separate state, will yet better appear, if we consider that though activity be a power, it is not a power to act or not to act at all: but rather a power to act this or that particular action, preferably to some other. If activity implied a power *not to act at all*, it would be contradictory to itself; for it requires no power not to act at all, or it is the negation of all power. Liberty is a power to do an action, or not to do it; but not a power to do that action, or else to do no action (b). There is a great difference betwixt not doing a particular action, which is one side of the alternative in liberty, and an utter abstaining from all exercise of active power, which is one side of the present question. Let us consider the terms: A power to do no action, is no power to do any action. If we had such a power, we should be wholly and finally inactive, and stand in need of the first Cause to re-create again some power in us. Or, if activity implied such a power, it should be first a power to act, and then a power *not to have the power to act*: so that, take it which way we will, it is still a self-destructive notion. Therefore the soul in a separate state must necessarily and incessantly act some action or

(g) Mr. Wallaston says (*Relig. of Nat. Delin. sect. 5. Prop. 15. pag. 91.*) Nor is it at all surprizing, that we should not be able to do this [draw an image of the soul in our minds, that is, in the soul itself]: for how can the mind be the object to itself? It may contemplate the body which it inhabits, may be *conscious of its own acts, and reflect upon the ideas it finds*: but of its own substance it can have no adequate notion, unless it could be, as it were, object and spectator both. Only that perfect Being, whose knowledge is infinite, can thus intimately know himself.

(b) Mr. Locke says, (*B. 2. chap. 21. sect. 27.*) "A man standing on a cliff, is at liberty to leap twenty yards downwards into the sea, not because he has a power to do the contrary action, which is to leap twenty yards upwards, for that he cannot do; but he is therefore free, because he has a power to leap, or not to leap. But if a greater force than his, either holds him fast, or tumbles him down, he is no longer free in that case; because the doing, or forbearance of that particular action, is no longer in his power."

other;

other; and is only free as to the choice of its actions. This argument deserves our attention, and will, I presume, be found *decretory*.

IX. But to reason more mechanically with some; let us suppose that the soul might have the power not to act at all, at some times, and that activity implied this. In order to exercise this power, (if that were proper) or to suspend the exercise of all power, it ought to will not to act at all, for such a certain time. By what is said, N<sup>o</sup> 5. it hath the power to act all this time; and though it might be easy to abstain from any particular action, for the time required, by doing other actions, and so occupying its activity that way; yet, there being a pleasure to an active nature, to be some way busied, in thought or motion, it must be always on its guard against all action, that it do not unawares break out into the exercise of its activity, by doing some action or other. That is, *it must be vigilant and active, lest it should be active, i. e.* it must will the doing no action, and that for the whole time supposed; which is again self-destructive, for *to will* is to act. If this were possible for the soul in a state of separation, why should it not be more possible for it in the present disadvantageous state of union? for there is nothing here said which our own experience doth not testify, when we are under no indisposition, or rather no great indisposition of body; and any person, on trial, may be familiarly convinced of it. What torture would it be to an infant, to keep it from stirring hand or foot? Nothing can stop the activity of the soul, but being clogged with an ill-disposed organ. When we are sick, or heavy with sleep, or fatigue, it becomes easy to abstain from action of the body, or mind; and only then. In the present incumbered state, we find it is as easy to *will* (which is the only proper action of the mind) as *not to will*, not to mention the necessity we are under; and there is a pleasure in reflexion, variety, and changing the acts of the will, as we shall see when we come to examine the nature of consciousness; so that though it were in our power not to change the acts of the will, it would require an inconceivable care and solicitude (i). It is one of the hardest things in the world to keep the at-

tention

(i) A man may at his leisure consider these several questions, which relate to this subject. By the exercise of what power is it that the soul could effect that it should not act at all? Is this the power of action, or of inaction? Is not inactive power a contradiction, or applicable only to dead matter? Doth it require but one act, or the continued exertion of this Power? Can a Being have power to effect that it should have no Power? (This question determined in the



tention close to one object, without wandering, or varying the acts of the will, for as long time only as one could repeat a few sentences. If the greatest criminal were to have his life, on condition of thinking but on one thing for an hour together, he could not perform it. Wherefore, without more words, whatever necessity appeared for the *power alone* in N<sup>o</sup> 5, is now to be ascribed to the *exercise of it*; all external impediments from body being removed. And since indefinient action infers indefinient perception, by N<sup>o</sup> 4, it likewise appears, that the soul must be indefiniently percipient, living, or sensible in a separate state. Any one (as hath been hinted) will find it equally impossible, if not more in the present state, to banish perception, as to banish action from his mind. Therefore we need no longer consider these as powers that can be separated from acts, or which subsist in a bare potentiality (k).

## X. And

(the last Section, when speaking of annihilation.) If this be possible in a state of separation, why not more possible in a state of Union? Would not the trial of this make a man solicitous to keep his mind in a state of inaction? Is not this solicitude itself a state both of action and perception? Is there any other way to perform this than by the indisposition of the body? Can it be said then that the mind performs it? How are we sure that the indisposition of the body does in fact perform this? Whoever surprized himself at any time, either asleep or awake, impercipient, or in a state of pure inaction; or was sure he was, for the least possible time, in such a state? Of this last question we shall speak hereafter.

(k) An objection hath been raised against the whole reasoning in these nine paragraphs, in the following manner. It is allowed that the soul hath activity or power in itself, but at the same time it is pretended that it cannot exercise this power, or put forth any act, unless it be united to the body; or that the body gives it occasion to act and exert its power; and since it cannot act without this occasion given it, that therefore it depends on being united to the matter of the body as a condition *semper quæ non*, though not as an *efficient cause*, in exerting any act.

This objection proceeds from not understanding, or at least not attending to the arguments I have adduced; however, I shall bring the whole reasoning into a narrower compass, and add some things to remove this particular prejudice. And first, I say, it is an express contradiction that an active Being should depend on a dead substance for the exerting its activity, so that it cannot put forth any act without it is first acted upon by that dead substance; all action must certainly spring out of its own nature. It may indeed depend upon the dead substance so far as that *limits, restrains, or hinders* its activity; and this is the way that dead matter really affects the soul in their present union; the power of the soul is limited and confined to a certain *manner* of action, and *degree* of that manner; and the matter of the body is necessary to its acting in this confined manner and degree: But this very consideration shews us that its native power would be more unconfined, if such impediment and limitation were taken off; and I assert that no man can conceive it possible that the soul should depend upon dead matter for *promoting, advancing, or forwarding* the active power it is endued with. This argu-

X. And lastly, which is very material, and I beg it may be attended to; it plainly follows from this reasoning all along, but more especially from

ment in other words is, that a dead substance may be an *impeding cause* of the power of an active Being, but can never be a *promoting cause* of it.

This argument is drawn from the natures of both substances considered in themselves, and apart; and therefore is the most proper to determine concerning them when separated: And it is certainly quite wrong to consider the disadvantageous appearance the soul makes in a state of union, and then to draw an argument concerning its power, when separate, from such disadvantageous appearance. To argue from experience in this case is, in some measure, equal to a begging the question; unless we had experience of both states: since union with, and separation from, a dead substance, must have quite opposite effects on a living Being. Let me ask, Can the soul subsist at all, when separated from the body? Or doth active Being require a dead substance to support it? The objection here supposes, I think, that the soul is only a certain subtil aura, flatus, or some loose, unsubstantial thing that must be dissipated, when not kept together by the matter it is confined to. And yet it hath been proved that the soul is a *substance*, a *living substance*, a *simple and un compounded substance* (Sect. 2 and 3.) which cannot stand in need of a dead substance in order to subsist; and in this very question, we are arguing upon the supposition of its being actually separated. It would be to *allow* and *refuse* at once, to suppose it may subsist separately; and yet to raise an objection from another supposition that it cannot subsist separately.

If the soul then may subsist separately, let me farther ask what kind of a substance it is? A dead or a living, an active or a powerless substance? Or let this question be answered, what is the substance in which life and power inheres as a subject, in this state of union? I have shewn it is the soul or immaterial substance. After that let this be answered, whether separation from a dead substance will deprive a living, active substance of life and power? This would be to make their union only the *subject* of the power; or it is to make two powerless substances *beget* power between them. If then the soul has power when separated, it must be allowed; but cannot exert this power when separated from dead matter, as is said; it must have *power* without *ability*, which I look upon as a repugnancy in terms. And the objection proceeds upon supposing both sides of this contradiction true; for it allows the soul to have power, and yet asserts it wants ability; since it could never exert this power without the concurrence of dead matter. The distinction therefore in the objection, between a condition *sine quâ non*, and an efficient cause, is without ground; a *power* to act, and yet an *inability* to act without the concurrence of dead matter, is the want of power to act without the concurrence of dead matter.

Besides, *life cannot consist in a meer power of living*, as I have shewn; (see N<sup>o</sup> 5.) it is something necessary. The soul therefore must have actual life when separated from dead matter; or else it must be perfectly a dead substance. And if so, life belongs as much to dead matter in the state of union, as to it; and two dead substances make up a living compound between them; or their *union* is the only subject to which the property *life* belongs.

Now since the soul must have *actual life* in a state of separation, it must be actually and constantly *percipient*, *sensible*, or *awake*; so that it doth not need to be acted upon by dead matter

from what hath been said in N<sup>o</sup> 7. that these several conclusions are not only applicable to the soul in a state of separation from all matter; but

matter to stir up, excite, or awaken its activity. Which, I presume, is the chief mistake the objection proceeds upon. When it is said that the matter of the body, by acting on the soul, gives it occasion to exert its activity; it is supposed that otherwise the soul would be in a state of insensibility, were it not roused, and excited to a sense of itself by something without; but this is to forget that the soul must be always awake and percipient in its own nature, unless we would incur the contradiction just now mentioned. Thus it can never stand in need of an occasion given it in this sense, as if it stood in need of being awakened into life and perception by dead matter.

If it be meant that the soul in a state of separation cannot act, for want of matter as a *subject* to act upon, or as an *instrument* to act withal; this is still the contradiction of allowing it the *power*, and at the same time depriving it of the *ability*. If any reason once forces us to assign a power to it universally, and without condition, (as I conceive my arguments do) that cuts off all such pretences, or conditions, as would deprive it of this power again. But *both these pretences* are false in fact. For, first, the soul is active about its own perceptions, or it works with them, and reflects upon them, even here: and since it must be percipient in a state of separation, it must have perceptions to work with, and be active about. When we reason upon power, life, activity, perception, the soul is busied neither about matter, nor any affection that can belong to matter.

And, secondly, when the soul reflects upon its own perceptions even in this state of union, I ask by *what power* it *doth this*? Or by *the help of what instrument* doth it perform such an action? The law of dead matter is, *to continue in the same state it is in*. And if the soul made use of that *dead substance* in the act of reflexion, this could not be but by exercising a power over it, or exerting an act upon it. Let this be considered. And that is, *we are forced to suppose the soul exerting a previous act of power upon dead matter, at the same time that we contend, it can exert no act of power but by the help of dead matter*. Or, *we cannot suppose the soul acting by the help of dead matter, but by supposing it acting without the help of dead matter*. This is a remarkable contradiction; it strikes at the root of our prejudices, and should for ever silence our objections.

This shews farther that the soul not only acts *without* the concurrence or instrumentality of dead matter, but directly *contrary* to it. The soul leaves off one action, begins another, changes the state of matter, and controuls it all manner of ways. And it is a direct contradiction that a dead substance should concur, in any sense, to make a living Being controul and counter-act itself. Matter could not be supposed to be the instrument of this, without being supposed to be *first over-ruled, controuled, and counter-acted*. That is, when we would suppose matter to be the necessary instrument of action to the soul, we must necessarily suppose action in the soul of which it cannot be the instrument: *i. e. Our supposition confutes itself*. And in truth, every action of the soul upon matter is a proof, that it acts without the help of that substance, and contrary to its nature. And this lets us see that the actions of the soul spring out of the nature of the soul itself, as I asserted in the beginning of this Note. The inertia of matter once evinced, would be of great and universal use to us in this subject, if we would reason fairly from it. And if we will needs reason from appearances in a state of union to a state of separation, *this* that I have here insisted on, is a certain and undoubted matter of fact.



equally applicable to it, and equally true concerning it, in a state of union with a body, or system of matter, that were subject to no disorder, or indisposition, never liable to be exhausted or run out, nor needed successive reparations, as our bodies in this present constitution do. Therefore, in these several particulars, we may substitute the supposition of a state of union with such bodies, when it shall please our infinitely wise Creator, that our immaterial part shall again commence union with matter, instead of the supposition of a state of separation from all matter.

XI. This was all I designed to have said concerning re-uniting our souls to systems of matter, by the power of an Almighty Being. But some have objected, *that the account I have before given of matter directly impugns the truth I seem here to assert; for if matter be what I have represented it, it must be an inhabile subject, utterly improper ever to be re-united with the soul, after it hath been once separated from it, in any other state of being, where the soul's happiness is to be increased, and rise to a much higher pitch than it enjoys at present; because matter in such circumstances can be good for nothing but to impede the operations of the mind, obstruct its action, and consequently lessen its pleasure and satisfactions.* On account of this difficulty, I beg leave to be a little more explicite, according to the principles before laid down. If these have given occasion to raise this objection, they will also help, I hope, to take it off. I did not think it could have been denied that our bodies might have a much more advantageous constitution than at present they have, nor that it could have been contended that matter, because unactive, was a subject inhabile, and utterly improper to be united to spirit on better terms. For first, if we will argue about the whole sphere of possibility, the extent of Omnipotence; it is plain that it can have no other limits than a contradiction in terms, or a self-destructive conception; and this is really to be without limits. If we would impartially apply this mark of possibility in our reasonings, we should not start so many difficulties about the possibility of the soul's being united to systems of matter, according to the purposes of infinite Wisdom; or of these systems being vastly more advantageous, and the union with them more pleasant, than with our present bodies. What we see already performed, viz. the creation of the substance of our souls, and of our bodies, out of nothing, and the actual union of these at present, which cannot be denied to be facts, is every whit as inconceivable to us, and in truth much more so, than the uniting them together again when separated. And yet we

make a difficulty of supposing a certain effect may be produced, though we must allow, that a much greater has been already produced. This is enough as to the possibility of our soul's being re-united to systems of matter (or the same systems of matter) of an equally advantageous constitution with the present, when it shall seem good to infinite Wisdom. As to the possibility of the constitution's being vastly bettered in a state of re-union, let us first reflect in general, that if the human soul could have reasoned on this point, before immaterial substance was united to a body of any constitution, how inconceivable this effect must have appeared to it. And when it had seen the effect performed in some *imperfect creatures, animals that only live in one sense, or two perhaps*, this low instance must have appeared to it the only possible constitution of a system of matter to which immaterial substance could have been united. And when it had seen this *difficult problem* solved to more advantage, and, if I may so say, by a *superior method*, in some of the perfecter sorts of creatures, it must still have been the effect actually produced, which could have given it a notion of the possibility of producing it. But this would have concluded nothing, according to the laws of good reasoning, concerning the limits of infinite Power, but only have proved the narrowness of its own conceptions: nor would it have been any argument against the endless variety of artifice it was afterwards to behold, in the curious mechanism of *insects, fishes, fowls, beasts*, and lastly of *man*, that it could not conceive any thing of this beforehand. And such a diversity of performing this controverted case (the same in the main with that in debate here) shews us that nothing is more absurd than to limit possibility by our manner of conceiving. We seem to have contracted some such notion concerning Omnipotence in bringing to pass effects now, as *Lucian* and the Poets give us concerning the superannuated power of *Saturn*; that in former times, and about the creation, it was perhaps good for something, but hath now lost its efficacy and virtue. However, as yet, I cannot help thinking that I have shewn, from the same account of the inactivity of matter, such a scene of things constantly performed by the same first creating Power, as in no respect yields to the raising up our shattered bodies from dust and corruption. (1).

XII. But

(1) When we seriously reflect on what is only accidentally mentioned here, we may observe with concern, that men generally admit of a kind of *fabulous age* into their philosophy. All beyond a certain date is held conjectural. We see a regular vicissitude of things obtain; and

XII. But to come nearer the difficulty: let us, on the one hand, consider the particular *disadvantages* we are under in the present constitution of our bodies, *from the inactivity of matter*, or otherwise; and call to mind, on the other hand, the several *conclusions* made above, *sect. 2.* The first disadvantage is that of moving our bodies from place to place. This, the foundation of which lies in the *inertia*, or resistance of matter, a property that it cannot be divested of, as it is a solid extended substance, is increased, partly by the quantity of matter in our bodies, and partly by their gravitation to the earth, their place of present habitation. Now we saw in that second section, that even in the present constitution of our bodies, all that we perform in spontaneous motion, is little more than exerting an act of the *will*; next to nothing abstracting from that act of

and this is all we allow as certain: How it was at first instituted, if ever it was instituted, or if it requires any power to maintain it, or if any power was manifested in the first production of things; these are *points* that men think can only be decided by guessing. *Aristotle* and *Epicurus* have made the two leading guesses; the one, that this constitution was *eternal*; the other, that it was hit upon *by chance*. These we follow. And the natural powers of matter (activities of an inert substance) patch up the scheme. Surely reason, which discovers to us the nature of an *effect* from that of a *cause*, may let in light upon this conjectural period of philosophy. Reason was as much reason from eternity, as at this day. A contradiction that cannot obtain now, could not have obtained millions of ages ago. This is an everlasting standard. We may be as certain that there cannot be a self-existent effect; that dead matter could not have determined its own location, figure, motion, quantity; that power cannot be exerted but by a powerful Being, &c. We may be as certain, I say, of these points, as if we had existed from the beginning, and been *eye-witnesses* of all that ever happened. Nor is the power of that Being, who first reared the Universe, and performed the first wonders, now grown old and decayed. I have endeavoured to shew, that the foundations of nature would suddenly be loosened, and all things run instantly into horrible confusion, if a power equal to a constant creation, were not indefinitely exerted in supporting the order and frame of the world; (see the Note (\*) N<sup>o</sup> 11. & *alibi passim*, Sect. 2.) Would we be convinced that Omnipotence once was? Let us consider that it now is; now works; and is ever putting forth ineffable virtue and force through the whole fabrick. And should not this put an end to the fabulous age of philosophy? We need only run the consequence backward, and say, the present contradictions were always impossible. Nor, on the other side, can any thing hinder us from running the consequence forward into all futurity. Infinite power and perfection cannot be one day antiquated; nor ever cease to govern all things with excellent wisdom and goodness. The foundation of this is, that which is reason now, hath been so from eternity, and will be so for ever. And, (to add one question more) into what shall we resolve this eternal indefeasible nature of reason and truth; but into the ideas of the supreme infinite Mind which must be infinitely or eternally true and reasonable?

volition,



volition, and as to the overcoming the inactivity of matter; since an indefinitely small part of the matter that is moved, is moved by the spontaneous mover, and all the rest is moved by the immediate power and impression of the *first Mover*. Nay we see that the whole *system of material nature* round us, and within us, is so curiously wrought and contrived, and so artfully put together, that upon the little which the human soul doth, a long series of motion often succeeds, as if we performed it all, by this single act of willing it only: and that *infinite Power* is not wearied, nor exhausted, nor perplexed, by being thus subservient to our will, or really to the spontaneity of *all living creatures*, in all places, and at all times. Nor can we think, but by forgetting what it is, that *such Power* could be wearied, or embarrassed, though the creatures, whose spontaneous motions are thus performed by it, were more numerous, (supposing all the other planets replenished with them, like this our earth, as is most probable; and all the fixed stars in the heavens to be suns with systems of such planets round them) and the motions of these creatures more nimble and frequent, and their acts of volition more quick. *Infinity of Power* prevents all such difficulties. There is a necessity that God should be in all those far distant places, *intimately*, by his power and knowledge, as *here among us*: and we see it is so. Who drives round the planets themselves, those vast unwieldy bulks of matter, in their immense orbits, with prodigious rapidity, and at the same time whirls them round on their own axes? From this consideration then, we may conceive it *at least possible* that the resistance of matter, that worst and most stubborn of all its properties, should cost us no trouble at all; and that the spontaneous motion of our bodies, or the motion of other bodies we were concerned with, should be performed, barely upon our willing it, in what direction, and with what celerity we willed it, according to our exigencies and desires; and that our moving, stopping, changing direction, should be as easy to us, as now it is simply to exert these several acts of volition, which we find it as easy to exert, as not to exert; being naturally performed in consequence of these volitions, by the subserviency of an *infinite motive Power*. Our seeing that it is so already, in a great degree, with respect to our present spontaneous motions, is a sure enough sign of the possibility of such a method; and that it is even consonant to the ways of infinite Wisdom. The impression of gravitation, which answers great and necessary purposes, in our present condition, as hath been shewn, cementing us to this our earth, on which our business at present is, and wisely in-

creasing.

creasing the inactivity of our bodies, might be suspended; or receive a contrary direction; or become more intense in that contrary direction; which happening, would be but the *same instance* of infinite Power, as at present. A greater degree of motive power might be communicated to the human soul in an after-state, and that in any assignable proportion. And lastly, the quantity of matter in our bodies may, and in all probability will, be much less then; of which immediately. Thus it is not only not impossible for infinite Power, but not inconceivable to us, that the inactivity of matter, that quality of it that gives us most uneasiness in our present union, and is most unpromising in any union, should be as easy to us, as if we were not united to an unactive substance at all.

XIII. The next disadvantage we labour under, from the present constitution of our bodies is, that their systems of matter are in a constant change. Spontaneous and animal motions occasion a continual waste of certain parts of matter, and myriads of particles are continually flying off from all parts of our bodies, or successively *excerned* from them: this loss we are obliged carefully to make up with new additions of proper matter, which forces the body into *fits* of indisposition, *intervals* of rest and sleep, that this newly thrown in matter may be wrought up in a proper form, and disposed to succeed in the room of that which is thus cast out. Also constant supplies of fresh air are necessary for the uses of respiration, and to maintain the lamp of life. But let me ask (which is the material question here) by *whose power and contrivance* is it, that matter hath at all this quality to make up the losses in our bodies, by a constant succession and change? Or by whose institution is it, that the air is *thus useful*? That there is such a *treasure* and *magazine* of it prepared? Or that it should be purified, and made useful a-new, when disabled, defiled? If the *Sceptic* can make it appear, that matter hath in itself certain eternal and necessary qualities, independent of any other being; which therefore the Being who instituted the present animal oeconomy, was obliged to make use of, as he found them, and as best he could, applying one thing to one purpose, and another to another, as their eternal and necessary natures would allow, not having an absolute power over the materials he wrought with; then I shall be *silent*. But if the contrary of this account may be supposed without a contradiction; if the contrary of it hath been proved; and eternal matter with necessary powers shewn itself to be *the greatest contradiction*; where will the remaining difficulty lie?

This

This whole affair, how dark and abstruse soever, may, I conceive, with submission, be yet reduced to this plain and familiar state: Whether the same quality, (energy, power, or virtue, if we please now metaphorically to ascribe these to matter) may be continued, or preserved, in any individual particle, or quantity of matter, by that *same Power* which first endued it with that quality; this Power being *infinitely great*? If this can be allowed, and I think it will amount to a contradiction not to allow it; then even we may conceive it feasible, or possible, (and that is all that is contended for) that the constitution of our bodies may be such in an after-state, that there shall be no change of matter in them; or that the same individual matter shall always serve to the same purposes: since, after the nature of matter is discovered to be what it is, as in that second section, it is not conceivable to us, that such an unactive substance should, by the constant succession of it, *recruit* our bodies, unless it were by the immediate indefinient power of the first Being, impressed upon it. It must undoubtedly appear to us men, easier to preserve a thing in the same state, and with the same qualities, be they what they will, than by an uninterrupted application of power, to effect an indefinient change of state and properties in it. What is it but an *arbitrary* and *unsupported* assertion, when the Sceptic affirms that the present constitution of body is the only one that could be; the only one which an infinitely wise *Cause* could contrive, or an *infinitely powerful one* execute? He hath no knowledge of this part of nature, beyond a few observations of matters of fact, *gleaned up* from the constitution that now obtains. Nor can he retort this argument, by saying, we cannot shew that infinite Power can do this. Let him consider that it is an easy thing to argue on the side of infinite Power; and how unwisely he takes the other side of the question; and defends the living powers of dead matter. As hath been observed before, the present constitution of our bodies seems both more *operose* and *costly*, in respect of pains and of materials, as designed to shew us the perfections of the *Author* of it. Now if the present œconomy were antiquated and laid aside, and another law obtained; if either reparations were not necessary to be made, or if necessary, yet as necessarily and incessantly made, as the wastes were that occasioned them, and as much without any act or consciousness of ours, as now the circulation, respiration, and all the rest of the animal œconomy, is performed without our knowledge, or participation, (which surely is a thing conceivable enough, from the *incessant operation* of God shewn above, through all the parts of matter) if we were surrounded with,



and constantly breathed, such an enlivening element, as would be literally, and to all purposes, an *aura vitalis*; all the train of bodily evils, arising from the present constitution of our systems of matter, weariness, weakness, want, old age, disease, pain, would disappear for ever. Our souls, which are, in the present constitution of the body, under a necessity of being still active and percipient, when the disorder of it doth not distress and over-power their active nature, would be then always under that *pleasant necessity*: our time, and thoughts, and application, which are now engrossed by the back and belly, and a thousand racking cares and disquietudes in providing for these, would be then wholly ours, to bestow upon rational acquisitions, and the pursuit of unfading pleasures. In short, as certain as it is that we cannot be other than miserable, under the present constitution of our body, (as shall be made appear) so certain is it, that this change will free us from all that load of pain and affliction, not only in our body, but in our minds, and bring us up to that state of *indolence*, which shall be explained below. And this is all indeed, I conceive, that can be expected on the part of matter: the rest of our happiness, true and *unallayed* pleasure, must consist in the gratifications of the rational nature, and be solely felt in our immaterial part. But is not this enough; is it not a *wonderful instance* of power, that we shall be as easy and free in our fellowship with unactive substance, as spirits quite disengaged from it!

XIV. Again, we may say, I think, without incurring any inconvenient consequences, that when the bodies of rational beings are designed for *other climates* of the Universe, than such a gross part as we reside in at present, a small quantity of that bulk of matter that now composes them, will serve for corporeal systems in those *finer regions*. For it is the identity of consciousness, not of material parts, that constitutes the same conscious or rational Being. Since then it appears by what hath been said in that second section, that the *attraction of cohesion*, whereby the parts (of all the parts) of our bodies stick together, is the immediate effect of the *first Cause*; if it shall so seem good to his infinite and unerring Wisdom, that this attraction should be more intense in those finer systems, these parts would thus become fixt and permanent, and all change, waste, and consequently reparation, be prevented. And by this way of conceiving it also, we come again to a possibility of the same effect: in which way of conceiving, no inconsistency can be alledged, unless by asserting the point

point in dispute, that any disposition whatever, differing from the present animal œconomy, is impossible. And the advantages of this change would be the same that were just now enumerated. The resisting part of our composition would thus be lessened: such bodies would not at all be cumbersome, but obsequious and easy; still numerically the same, and ours with propriety; and as little liable to the inconvenience arising from being made up of parts, as pure spiritual substance itself. Whence, in a particular manner, appears their folly, who to prove the soul mortal, think it enough if it were shewn material: for if other difficulties would allow the soul to be at all material, this would be no hindrance; as hath often before been said. Whence also it appears that an objection started by modern Free-thinkers on this subject, is either a wilful mistake, or made through much inadvertency: namely, That if all the men that ever lived on the earth, were to have bodies given them at one time, there would be a deficiency of matter to furnish out so many corporeal systems; and that if these bodies were to be transported to a purer, finer æther, they would not be able to subsist for any time (m). This is poor indeed for philosophers! The meanest among the people have more refined notions, than to imagine that we should eat, drink, and do the same things in an after-state, as now; or that the mass of blood should be as liable to fevers there, as here after a debauch! These men tie down infinite power to their own way of misconceiving things; and then assert the impossibility of their own imaginations. It hath been demonstrated by an unexceptionable hand, that a very moderate quantity of matter might fill the whole sphere of Saturn, and not leave a vacuity above that of an assigned diameter (n).

XV. The last disadvantage the soul labours under, from the present constitution of the body, is that it perceives external things but a few ways, and by a few inlets, or passages of the body: but what hath been already said may be easily applied here. It is no better argument against the possibility of more ways of perceiving external objects than five, because there are but five, than it would have been against the possibility of more than one or two, if there had been but one or two; or because some creatures may have but one or two. If an animal body had been contrived which should have been all over one common sensory to the

(m) See a late Book, *The adventures of Jacques Massie*.

(n) *Introduct. ad ver. Physic. Lect. 5.*

mind lodged within ; none would have excepted against the possibility of such a body : and it is no argument against *the possibility of it*, that such a body hath not actually been made, unless an inconsistency in the thing itself could be shewn (o). Some insects have whole clusters of eyes, when their exigencies require *more than two* ; and some creatures can thrust out their eyes to a distance from their head : and there is variety enough exhibited in disposing the *other* senses, in the several species of animals, to

(o) It may perhaps be the more easily conceived, that the body may be all over one common sensory to the soul, if we consider that the body, in its present constitution, *limits* and *confines* the perceptions of the soul, but no way effects them. The fabrick of the eye is indeed wonderful, and by it this mechanical (or rather optical) problem is performed, that a living percipient *Being*, confined to a *dark* and *close* place, is apprized of what exists, and is done without, and at a distance. But this must be performed by communicating motion from those *distant objects* to that *percipient Being*. A material organ, however artificially contrived, could conduce no other way to the perception of a *living Being*, than by communicating the motion it receives. It must be the percipient *Being* itself, that perceives these communicated motions, by virtue of its own *perceptive faculty* ; and since it is *percipient* in itself, and confined to a dark and close place, we must of consequence conceive its *perceptions* to be *likewise confined* ; and that the eye only permits them on one side, by communicating motion only from one place ; and therefore that on all other parts they are hindered, or the motions are intercepted. How much is it then that the eye performs here ? Thus much only, I suppose ; it limits and confines the perceptions of the soul to a narrow space, as a *hole* in the window-shutter, limits and confines the entrance of the *rays* of light. We saw before, *that all action must spring out of the nature of the active Being itself*, (see the Note (k) N<sup>o</sup> 94) and it is no less certain here, *that all perception must spring out of its own nature, or belong to it*. It is true, it may be said, that the *eye* modifies the motion which it communicates ; and thus conduces to the perception of the soul. But if there were no percipient *Being within*, the motion, however modified, would not be *perceived* : and to make the perception of the soul depend on the *modification* of mechanical motion, or *owing* to that, is still to incur the contradiction of *two powerless substances*, &c. And, secondly, though the rays of light are made to *converge*, and form an *image* in the bottom of the eye, the eye it self is as little active in doing this, as the hand or foot is. It is *another Being* that performs the motion, and the *soul itself* perceives the *image* or the motion excited by it. And if the *soul* perceives the images, or *pictures* of objects, it may as easily perceive the *originals*, or objects themselves. There would be no necessity of a *lens* in the hole of the shutter, when the room is darkened, to form the *images* on the opposite wall, if the rays from the objects could enter in their natural order : and it requires no more *art*, nor a greater *perceptive capacity* in the soul to perceive the external objects, at first hand, than to perceive these *images* on the wall. Just so ; the reason why this artifice in the eye (which is the great, original *camera obscura*) and these images on the *retina* are necessary, is because the soul is *confined*, and in a *dark room* ; and the same vivise faculty which perceives the *copies* or pictures there, must as easily perceive the originals. It is still but perception of *figure*, in the one case as in the other. The confinement of the soul therefore to a

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let us see that the *great Contriver* was not straitned; and that there were more ways of *solving the problem* (as I said above) than one. In our present condition, we have ways of applying to all the qualities of objects, that our necessities require; and without all doubt, we shall have ways of applying to all the qualities of objects, that our future happiness and pleasure demand. We have *reason*, that superior faculty of the soul, which no avenue of the body could *let in* upon it; whereby we discover truth, and grow acquainted with the *abstract natures* of things themselves, which consist

dark room, makes all this art and address necessary; and yet we infer from thence, that the soul could not perceive external material objects at all, unless it were thus confined, and still carried a kind of *camera obscura* about with it, and surrounding it! And if this is the art to make confinement and darkness consistent with perception of external objects; nothing can be more preposterous and unreasonable, than to imagine from thence, that darkness and confinement are *necessary to the perception of these*; or rather, that this *darkness*, this *confinement*, and this *art*, are the things which *effect* perception in the soul. And I am sure they imagine thus who tell us so often, *Quinque ut opinor, eam faciendum est sensibus auctam*. The perception of a living *Being* cannot be owing to limitation and confinement, nor depend on the helps that are necessary, when it is thus shut up and limited. No man can maintain this, without being soon reduced to grievous contradictions; agreeably to what has been said before.

Hence therefore, as was asserted, the eye only limits the perception of the soul, or permits it on one side, by communicating motion only from one hand. And the reasoning is the same with respect to *the other organs of sense*; they only convey the motions of which the soul is percipient; but for wise reasons these motions are impeded, except only through these *avenues*. And thus they bound in the natural perceptivity of the soul, otherwise extensive and unconfined. Hence the *material organs* are (as the word imports) the instruments only for limiting a *certain manner* of perception, or confining that manner to a *particular degree*, that it be not more extensive than suits our present condition; but are not *the causes* of that perception in the soul. The right disposition of the medium, and the due distance of the object, are also necessary to perception, which nevertheless are not causes of that perception. So the bad disposition of the *humours* and *coats* of the eye may hinder perception; though their right disposition be not the cause of it; in the first case *the limitation is total*, and in the last some part is removed. Now since each organ is the instrument only for limiting a *certain manner* of perception, or confining that manner to a *particular degree*; we are to say, That the soul hath the capacity of perceiving in that manner, *not because* such an organ is the instrument; but that such an organ is *made* the instrument to limit that manner of perception to a *particular degree*, because the soul hath the capacity previously in its own nature without limitation. And indeed it is not to be supposed, if there were an eye placed on the back-part of the head, which might communicate motion from objects behind, that the soul would not see these objects likewise, as it perceives those before us. This would be (if I may so express it) to fancy the soul blind on that side. Whatever reason there is that it should be percipient of motion coming from one part; the same there will be for its being percipient of motion coming from any other part, and really from all parts round. And I have immediately shewn, that the particular modifications of the motion, are but the *art* necessary to it as being confined;

sist solely in idea, and are not properly objects that can enter by material organs. This faculty may admit of greater improvements and heightenings (as shall be observed in another place) than we can conceive our corporeal systems to be capable of.

XVI. But it has been said, which is the chief part of the objection, that it must be a punishment to spirits, once separated, to enter again into systems of such matter, howsoever disposed; and that this is inconsistent with

confined; for we should still incur the contradiction, which I have endeavoured to explode in the beginning of this section, that two dead substances might rise to life by being united; if we allowed that the motion of dead matter, howsoever modified, might endue the soul with a perceptive capacity of any objects, whether placed before, or behind us.

Therefore I conclude universally, with respect to external objects, and the functions of the senses, that the perceptivity of the soul is confined by the organs of sense, and no way effected by them; or (if this way of expressing it be thought not so accurate) that the organs of sense take off some of that limitation from the perceptivity of the soul, which would be otherwise universal; and that the modification of the motion is necessary, not upon the account of the *perception*, but upon the account of the *confinement*. As more art is required, where the difficulty in the performance is greater. And, lest any should think this a partial account of this affair; let us suppose a man suddenly deprived of *hearing, seeing, feeling*, &c. or the organs to be disabled; and let us consider the state of the soul in these circumstances. Lastly, let us suppose that all the *avenues* of the senses were *opened* again: In the first case there is a *total limitation*; and in the second, a part of that limitation is removed: but the soul itself is neither deprived of its perceptive capacity in the one, nor endued with it anew in the other; that remains inherent in the soul itself.

Now to apply this to the main subject of the section, or to the soul in a state of separation. This cannot be reflected on but with much pleasure, I think; and we may now speak with more assurance of the *enlarged life* which the soul shall have when separated from the body. For, since it is contradictory that its perception should be effected by the modification of motion, as communicated by material organs; it is even inconceivable that a prodigious limitation should not be taken off from it, when freed from the confinement of these organs. So unphilosophical is *Lucretius's* objection, that the soul could not perceive *material objects*, but by the help of *material organs*; i. e. could not perceive matter, but by the help of matter! And now if we consider perception by organs in this view, the wonder will be, not that the soul is endued with perception, by the mechanism of the eyes, ears, &c. which hath hitherto been the general prejudice in considering this instance of the *Creator's* power, and is indeed contradictory; but that the otherwise not bounded perceptivity of the soul, should at all be made consistent with, or actual perception in any degree be preserved, in the union and application of dead matter to the soul. We carry over our wonder to the impossible side, and think nothing worth admiring unless an impossibility is wrought. Though this is only one particular instance of our general prejudice in considering the several parts of nature, where all efficiency is ascribed by us to natural activities and powers of a sluggish substance.

Farther,

with the design of making good men happier, in that state of re-union. But I answer, that this can be no punishment, nor diminution of the happiness designed them, if we conceive it within the reach of *infinite Power*, to bring this union to a state of *indolence* or inoffensiveness, on the part of matter (as I have endeavoured to shew, in these last paragraphs, it is) for to have no trouble, or uneasiness at all from matter, is precisely the state of happiness, with respect to it, that spirits have, which are entirely free from it. And if we go over to the *other side*, and say there

Farther, since the perceptions of the soul are limited and confined by the organs of sense, but no way effected by them; what is said here thus at length falls in with what was said in the Note (k). N<sup>o</sup> 9. or the present argument becomes the second part of the *argument* insisted on there. We saw there, that it was contradictory to say *the matter of the body is the instrument of action to the soul*, or that *the soul could not be active without it*; because we were forced to suppose the soul exerting a previous act of power upon dead matter, at the same time that we contended, that it could exert no act of power but by the help of dead matter; or we could not conceive the soul acting by the instrumentality of matter, but by conceiving it acting without the instrumentality of matter. And here the matter of the body is as little the instrument of *perception*, as there it was of *action*; for we cannot conceive the soul percipient by the instrumentality, or help of that matter, but by conceiving it percipient previously in its own nature, and without the help of such matter. When it perceives itself *affected*, it doth not borrow *this perception* from the thing affecting it, by the very terms and conception: *perception* springs as much out of the nature of the soul, as *action*. And, as has been said above, we cannot conceive perceptivity, or life, to consist in the mere capacity or power of living; in this we are necessary; otherwise the living Being must be dead to all purposes. Read again the end of N<sup>o</sup> 6.

And finally, since the body limits and confines the perceptivity of the soul, we may conceive that it might limit that perceptivity *less* and *less*, till at length it became all over one common sensory to the soul; or admitted the motions from external objects all manner of ways. *For admitting, or communicating motion from external objects, is all that ought to be understood by a sensory.* And since we see some insects have whole clusters of eyes, as I mention above; and that one of the senses is at present diffused all over the body, namely *feeling*; these instances shew this to be neither impossible nor inconceivable.

I cannot put an end to this Note without adding what a learned and ingenious Friend has farther observed on this subject, *viz.* That it may be one reason among others, why the body thus limits and confines the perceptivity of the soul in the present state, that there might not be a confusion of objects all acting on the soul at once, and a hurry and indistinctness in the attention; as when a person has more things to dispatch than he can well look to: And that this may likewise be one reason why all our past thoughts and consciousness, are not in view at the same time; though they may be recollected in a great measure when occasion requires: But that however, in a state of separation, when the *activity* of the soul is freed from all impediments, its *perceptivity* will also be without confinement from material organs; and both will be in proportion then, as they are now.



is a *positive* and real happiness in being joined to matter, it would follow that the happiest spirits ought to be in a state of union with it. But sure no attentive man ever thought that there consisted any real felicity in being united to material substance. A paradise of the pleasures of sense is very gross philosophy. It is enough that it shall give us no impediment, let, or restraint; the inactivity of it being *corrected* by an *infinite motive power*; and the fixedness of it rendering it as little inconvenient, from being made up of parts, as if it were pure spiritual substance; and that it shall leave all other happiness, rational and true pleasures, as accessible to us, and as endlessly increasible, as if we were not at all concerned with it. Thus, *infinite power intervening*, our being united to, or separated from matter, appears a thing indifferent, either as to the degree, or kind of our happiness. It is true, we are subjected to a great *superplus* of pain and trouble, from the present constitution of our bodies, on the most advantageous supposition we can make; *wisely*, to shew us that happiness is not to be expected here, nor at all from the gratifications of sense; and again, we are made capable of rational pleasure, which cannot be finished, or even well begun in this period; for the same reason. For *rational pleasure* is such that we might say, the Author of our Beings was not infinitely rational, if ever it were to have an end. Upon this and other accounts, I shall afterward enquire as exactly as I am capable, into the nature and extent of these two different kinds of pleasure, sensual and rational. But to return from this digression, to where we left off at N° 9. concerning the indelinent activity of the soul in a state of separation.

XVII. It will possibly be said, that though it may be easily conceived that the human soul should be *incessantly percipient* of something or other, yet it seems hard to imagine that it should be *incessantly active*; that if it is only active by *willing*, and only *wills*, when it turns its perceptivity from the consideration of one object to another, it must at that rate be incessantly shifting the objects of its contemplation; and for it to dwell on the consideration of any one, for any time, would be impossible: that we have experience, even when the body is best disposed, of its being merely passive, and percipient only of objects offered to it, without its own activity exerted in turning to them; and that this incessant action would be more a *fatigue*, or rather *torture* to it, than any thing else, giving it, as it were, a *vertigo*, in continually whirling from object to object. But in  
answer

answer to this, it is to be observed, that the soul is not only active, when first it applies itself to the consideration of any object; but incessantly active, all the time it is considering that object. The applying the perceptivity to it, is the change of action, the end of one, and the beginning of another; but the continued application to it, is that action continued, or the first act of willing still kept up. For, since to will is to act; to continue the will, is to continue the action; and to will without intermission, is to act without intermission. Give me leave to illustrate this, by a familiar comparison. When a man takes first hold of any thing, a piece of *iron*, v. g. with a pair of tongs or pincers, he acts, or begins an action; but the action is continued, all the time he holds the iron, be it as long as it will, till he quits this hold for another, or this piece of iron for another. And though he should do nothing but hold it; yet he doth something when he holds it, *by the terms*: he continues the action. Which ever way it be that the soul affects the body, when first he takes the hold, it continues still to affect it the same way, all the time till he lets it go. The animal spirits, which are, probably, the immediate ministers of the will, crowd incessantly into the same parts, and there is incessantly the same tumefaction, or contraction of the muscles, which are the instruments of this action, as at first. The matter is not much different in thinking: to keep an object under consideration, is the same thing as a constant attention, or application of the perceptive faculty to it; and this is effected by *constant willing*. Just as looking stedfastly upon one point, requires a constant direction of the *axes of vision* to that point; which must be effected by constantly exerting that power, which the soul hath over the motion of these axes. When we are sick, or have a head-ach, it is with pain we can perform this for any time, which shews it to be action. The property of matter, whereby it continues in that state into which it is once put, proceeding from its want of power to work a change, is by no means applicable here: and it is our prejudice, to call the *transition* only of the perceptive capacity, from one object to another, action. We are indeed so accustomed to feel difficulty in action, when we act by the body, that if an action costs us no trouble in performing it, or produces no sensible change in matter, we lose the notion of our being active, and the *distinction* we have formed to ourselves between *action* and *inaction*. When we move a limb of the body spontaneously, it is confessedly action; motion is a sensible change: but it is no less action to hold the arm straight out, than to put it at first

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into that posture, which we may be sensible of, because we soon find ourselves unable to continue it thus for any time (*p*) ; and that is no sign of *inaction*. And agreeable to this, a close attention of thought to the same thing, is more fatiguing than frequent changing ; there being, as was said above, a relief and pleasure in variety of objects. So far is it from being true, that changing the acts of the *will* is only action. And this is one reason that *history*, *poesy*, &c. are more entertaining, to those who have not acquired a steadiness of attention, than mathematical and abstract reasoning. This shews us that the soul is active and busy, in the stillest intervals of musing and thinking : and as we have seen in N<sup>o</sup> 4. that action necessarily implies perception ; so in this case, perception naturally infers action : that is, though perception doth not necessarily imply action ; yet it is here a natural sign of it. When we fall heavy with sleep, or sink from a waking to a sleeping state, we lose gradually the perception of external objects, or whatever we were thinking of, as the mind ceases to be active in applying the attention to them ; till all degenerates into an *internal scene* of thinking, where the mind is still active and perceptive of, and about other objects.

We may farther observe, that if thinking were not action, a man might run a race, and study a hard theorem at once ; for that would be only to run, and do nothing else. It partly proceeds from the simplicity of the attention, of which hereafter ; and partly from the limitedness of the active power of the soul, that it can do, or be intent upon one thing only at a time ; and if thinking were doing nothing, the doing any thing else would not exclude it. And as this helps to shew us, that thinking is action, in whatever degree of intenseness ; so it assists us, in some manner, to get a transient glance of the boundless, adorable power and perfections of the *Deity*, who performs an infinity of actions, infinitely different, all at once, in all places, without perturbation or perplexity. We have scarce any other way of seeing the greatness of his perfections, but by bringing them into comparison with what is *difficult to us*. When they become great beyond a certain pitch,

(*p*) Hoc [tremorem induci, ob defectum succi spirituos] confirmatur ex eo, quod viri alioquin robusti, pondus proprii brachii extensi sustinere non possunt, continuatâ actione [here it is called action] per horam integram, absque tremore. Quia nempe, ob continuatam effusionem ex iisdem nervis, succi spirituos dissipantur, & deficiunt, & proinde, interruptis vicibus, & minutis stillicidiis exprimi possunt. [In which intervals the arm must yield and sink down a little.] Borell. de mot. animal. Part 2. Prop. 216.



we lose the sense of their greatness; and, if I might so say, by still increasing they become less to us.

XVIII. To confirm farther the incessant activity of the soul considered in its own nature, we may next observe that as all *willing* is action, so this *willing* is the only action of the human soul; or all that it doth when it acts, is only exerting an act of volition. When it moves the animal spirits, in order to move any part of the body, it only *will*s the motion. It knows neither why the motion is performed, or how it is performed; but if the body be rightly disposed, it will be performed in consequence of its volition. In like manner in its own internal operations of thought and reasoning, it performs no other kind of action but *willing*; for it is necessary in seeing the identity or diversity of its own ideas, after the will hath applied the perceptivity to them; as shall be shewn. No *agent* indeed can act, without *willing* the action; but the difference to be taken notice of here is, that the human soul in particular, only *will*s the action, and is forced to depend upon a *borrowed power* for the execution of what it *will*s. The system of nature round it, as was said, is so wonderfully contrived, that the execution of its *will* is performed, blindly as to it. And it is difficult to say, whether this is a greater mark of the wisdom of the Contriver, and of its dependence upon him; or of his goodness and condescension, in being subservient to the will and spontaneity of his creatures. But *willing* is a thing that costs us no pains; it is full as easy to us to *will* a thing, though the effecting it might not be in our power, as *not to will* it: though there may be an inequality in the disposition of our bodies at different times, there is none in the power of *willing*. And when it is freed from this inequality, as it will be in a state of separation, or in a state of union with a system of matter liable to no disorder, *action* in all respects, will be as easy to it as *inaction*; since its own proper action, even here, is as easy. Let us call to mind a little, that it is a repugnancy in thought, to suppose an active substance feeling any difficulty from itself in acting. It must be *something inactive* that gives it any uneasiness to act; that is, some dead substance. If it felt uneasiness from itself; it must be from *some part* of it, that wanted to be actuated; that is, some *inactive* part; that is, some part not of active substance (for of such parts active substance could never be made up); and that is, some part *not of itself*.

XIX. Let us reflect *how necessarily we become active and percipient again* (of external objects, I mean) *after sleep*. It is as little in a man's power to continue sleeping at pleasure, as it is to fall asleep when he lifts; though his life depended on it. This would be a great happiness in many cases, and a *singular privilege*. Certainly it is not the right order and disposition of the body, that thus *forcibly* restores action and perceptivity to us; for then we should need no other principle to actuate and enliven us at any time; but the order of dead parts would make them living and rational (*wise, learned, and laughing*, in *Lucretius's* phrase); and the effect would be perfecter than the cause, not only in degree, but in kind; which would put an end to all reasoning, (of which by and by). This therefore can proceed from nothing but the nature of the soul itself, which is necessarily active and perceptive in itself, and *sheds* life and perception (so to speak) through *the body*, when the right disposition of that returns. The soul in sleep seems to suffer something like what happens to a *live-coal*, covered up under the ashes; which is alive all the while, but only appears so, when disencumbered, and exposed to open air. As the coal would at any time discover itself, and kindle up any combustible matter applied to it; so the soul necessarily enlivens a rightly disposed body. We cannot suppose it like a dead cinder: for as that, of itself, could never become a live-coal again; so neither could the soul recover life and action, of itself, if it were, for any the smallest time, in a state analagous to that of a *dead cinder*.

XX. We may conceive, I think, without much stress to the imagination, that when two substances of contrary natures, an *active* and *inactive* one, are joined together in a state of union, they should so affect each other, that the whole compound should not appear perfectly dead, nor perfectly living; which is the very appearance we make: and that, as the one or the other principle prevailed, the compound should seem to partake of that nature. This is not hard in general to conceive; though the formal method how they affect each other may not be conceivable by us. It is certain enough, from what is said in the second section above, that gravity, or elasticity, by which a *clock* or a *watch* goes, is the action of an immaterial substance upon matter. We can as little conceive the formal manner of his impulse or impression, as how the soul affects the matter of the body, or is affected by it. This very common instance *includes in*

itself really all the difficulty that is in the mutual action of matter and spirit on each other. Yet because a man cannot conceive how it is, that an immaterial impulse constantly impressed should make a watch go, this would not make him deny the evidence of truth, or say, that either it doth not go, or goes without any power. And, to pursue this a little farther, if we conceive *this force* much superior to the *inertness*, or *friction* of the matter to be moved, the machine will go easy and lightly; if it is but little stronger, that will be moved slowly and with difficulty; but if it is only barely equal, there will be an *equilibrium*, and all the movements will stop; and if it is *inferior*, the machine, so to express it, is *more dead*. Now, if instead of supposing the force different, we suppose the disposition of the parts to be moved, different at different times, the same constant force remaining and acting; all the same different appearances will happen: the machine will seem brisk and lively; faint and languid; sick, or quite dead, (to speak metaphorically); as the indisposition of the parts balances the active force more or less.

Comparisons do not hit in all particulars: yet it is not difficult to apply this to the case of the body as actuated by the soul; nor is there any considering person, I think, who may not see from this instance (in some manner parallel) how frivolous those objections are, which the sceptic brings from the inequalities observable in the body, to prove the soul material. For though it may be said, that the *force* which moves the limbs doth not belong to the soul, as hath been shewn before; yet that need be no objection to the comparison: for the disorder of the parts certainly hinders that force from being exerted, and the command of the soul over the body to appear; since it hath likewise been shewn, that *this force* is subservient to the *spontaneous mover*; and therefore in the present case may be considered as its own force.

XXI. From the soul's necessarily actuating the body, either during its being rightly disposed, or as soon as the indisposition of it is rectify'd, it farther appears, that the *law of their union* is such, that only a final aptitude of the body to be actuated, can separate them: for they still continue united, notwithstanding any indisposition which can be rectify'd. And therefore the soul is not at liberty to act by itself, before that *final aptitude* or disorder happens. We need not wonder why the soul doth not act by itself, when the body is not fit to be actuated by it: it hath no liberty but what is indulged it, by the *Being* who appointed this *union*; and



and if it had such a liberty, the union would be in vain. The soul would always chuse to act by itself, retiring from the body while it were indispensed, that it might enjoy a separate and unpainful state of existence. And since the body, in its present constitution, must always give the soul some uneasiness, less or more; as also since, when best disposed, it must retard its application to many objects; the consequence would be, that it would never chuse to actuate it, or to act by it, more than a man at liberty would chuse to walk with fetters on his legs. A little taste of separate existence would put men upon all expedients of dissolving the union violently. Thus such a liberty would have been abundantly inconsistent with the design of uniting them together. It is rather wisely instituted, that we naturally seek to prolong the union, that it may appear how we approve ourselves, in this our state of *novitiate*. I might mention here another kind of inconveniencies that would ensue from this power indulged to the soul, to the overturning of human society: if we consider the *lust, avarice, revenge, &c.* of mortals, who would thus come to know more perfectly the means of accomplishing all their bad designs. No method of security would be safe, or secret; nor any method of ruin unknown, to the utter confusion of the world. How much better is it then that it should be otherwise ordered! It is true, in sleep the soul acts, and is acted upon, by a different method from the ministry of the senses; but it is all the while in the body, and not trusted to its own discretion.

But this whole appearance of dreams shall be considered at large a little farther on. In the mean time, I cannot help being concerned to find some great and learned men taking the *wrong side* of ambiguous appearances, and falling in with the sceptical notions of the world, by insinuating that the soul owes the perfection of rational thinking to the body; and this in order to maintain another *hypothesis* of no very great consequence in itself, though it were true in this state of union, *viz. that the soul thinks not always (q)*; which yet is not easily to be proved, even though the activity

(q) *Essay concerning human understanding*, B. 2. ch. 1. sect. 16. "Tis true, we have sometimes instances of perception, whilst we are asleep, and retain the memory of those thoughts; but how extravagant and incoherent they are for the most part; how little conformable to the perfection and order of a rational Being, those who are acquainted with dreams, need not be told. This I would willingly be satisfied in, whether the soul, when it thinks thus apart, and it were separate from the body, acts less rationally than when conjointly with it, or not;

of spirit be clogged with dead matter, and is certainly false in a state of separation. That I may not be misunderstood, I do not mean that any man should lye for the sake of truth, (truth stands in need of no such help, but rejects it;) nor that one should avoid any difficulty, or not consider all sides of any appearance: but what I complain of is, *the not considering* all sides of any appearance from which a weighty inference seems to be drawn, especially if it be perplext in itself; as the appearance of dreams certainly is. If the soul were indebted to matter for the perfection of rational thinking, matter would be the perfecter *Being* of the two; which it would be absurd to suppose: and if thinking, or *activity* (and that the highest kind of activity) doth not belong to the nature of immaterial substance, it must be *merely accidental* to all substance; which is no less absurd. This last I have shewn false in what is said before (N<sup>o</sup> 3.) And an endeavour to remove the pretence which our dreams may give for suggesting, that the soul owes the perfection of rational thinking to matter, together with some other reasons to be mentioned hereafter, will, I hope, plead my excuse for offering an *essay* on that intricate subject.

XXII. We may farther observe, the first nine paragraphs of this section being duly considered, that they who placed the essence of the soul in thinking, rather expressed their meaning unwarily, than had false conceptions of the nature of it. If essence and existence have different meanings (as in propriety, it seems they should), by essence, I think, can only be meant, the abstract natures of things; or the ideas of the things in the divine intellect, which were before the things themselves existed. Mr. Locke rather takes essence for the *Being* of any thing (*r*); though we usually

its separate thoughts be less rational, then these men must say, that the soul owes the perfection of rational thinking to the body; if it does not, 'tis a wonder that our dreams should be, for the most part, so frivolous and irrational; and that the soul should retain none of its more rational soliloquies and meditations." We shall afterward see, who in this place ascribes the perfection of rational thinking to the body; however here is a broad hint for material souls. That is for the most part only, is not always; that side ought to have been considered also. I hope it will appear, that the most incoherent of our dreams, is an appearance far above matter, or any power matter can be endued with: and that, upon a narrow examination, the actions properly of the soul, in dreaming, will not be found so irrational, as is here presumed, and generally conceived.

(*r*) — " But since the essences of things are thought by some (and not without reason) to be wholly unknown; it may not be amiss to consider the several significations of  
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ally say, such a property is of the *nature* or *essence* of a thing, taking either word indifferently; but never that it is of the *Being* of it, which rather imports its *existence*. Be it as it will, there can be no great mistake in saying, a property is of the essence of a thing, when that thing cannot be conceived without this property. Now, by N<sup>o</sup> 2, and 5, above, it is contradictory that the soul should at any time, even while united to the body, be without the power of action, that is, of thinking; for reflection is action; and thinking, or reasoning, is reflection. And by N<sup>o</sup> 7, 8, and 9, it is contradictory that, in a state of separation, it should not always be active, or exercise this power. And by the reasoning in N<sup>o</sup> 7 and 19, it appears that it is only the indisposition of the body, that can interrupt the exercise of this power at any time. So that, if they had made a distinction between *activity* and *real action*, and excepted some

"the word *essence*. First *essence* may be taken for the *Being* of any thing, whereby it is, what it is, and thus the real internal, but generally in substances, unknown constitution of things, whereon their discoverable qualities depend, may be called their *essence*. This is the proper original signification of the word, as is evident from the formation of it; *essentia* is its primary notation, signifying properly *Being*, &c." B. 3. ch. 3. sect. 15. Here (not to mention that it is not extraordinary for the signification of a derivative word, especially in a philosophical acceptation, to differ very widely from the grammatical meaning it might have according to the form it is derived in) the word [*Being*] I think, is equivocal, and signifies the internal unknown constitution of things, less properly, at least less commonly, than any other thing. The *being* of a thing is ofteneft taken in opposition to the *not-being* of it; and then it is the same as the *existence* of it. We say such a thing is not *in being*. And sometimes it imports both *essence* and *existence*; as when we say we have our *Being* from God; that is, both our *existence*, and our nature or *essence*. But granting that *essence*, *being*, and the internal unknown constitution of substances, are properly the same thing; since this internal unknown constitution once existed not, and yet was known then in the *divine intellect*, it must have been in it there. So that at last, in any acceptation of the word, we must resolve the *essence* of things to *idea*, and make it the same with their *nature*.

There is one thing farther may be observed from the place here cited. Mr. Locke allows the internal, unknown constitution of things is *something*; since their discoverable qualities are owned to depend on this; which, I think, is very right, for qualities cannot depend on nothing. This is taken notice of, because sceptical men begin to suppose they have Mr. Locke's authority for insinuating that the unknown constitution of things is in itself nothing; and that *substance* or what he calls *substratum* is but empty sound. But if there is any such thing as quality or properties, there must be some farther thing to which they belong; since a quality could not subsist by itself, or without a subject. This *other thing*, if we speak of it at all, must be called *subject*, *support*, *substance*, or some such name; let these men ridicule as much as they please. For though we know not what this substratum or support of properties is, nor have any particular idea of it; yet we know that it is, unless properties could subsist by themselves. And if there neither properties nor subject, there would be nothing left to exist.



certain intervals of inaction perhaps (though none of this caution was absolutely necessary, as will appear immediately); no body could have taken exception to their opinion. If we take away from our complex idea of a *substance*, the particular ideas of those properties, by which only we collect that it is a substance, we take such complex idea quite away; since it consists only of those particular ideas. If we take away from our idea of matter, those of solidity and extension, we leave ourselves no idea of it remaining. After the same manner, if we deny activity and perceptivity concerning spiritual substance, by which we can only collect it to be a substance, we deny every thing we know concerning it; or we deny ourselves to have any idea of it; and reasoning about it as without these powers, we reason precisely about nothing, of which we have any particular idea. To say it may still be a substance without these powers, is to suppose it *dead substance*, which could never come to the exercise of these powers again if it had once lost them, as we see it doth. And therefore it can never be without them. Solidity seems not more necessary to the conception of matter than activity and perceptivity to the conception of spirit. And since considered absolutely in itself, it cannot *not exercise* these powers; the justest idea of it is, that of an *active perceptive Being*, which we cannot conceive in itself, without real action and perception. Mr. *Locke* says, it is not necessary to suppose the soul always in action, and that thinking may be to the soul what motion is to the body: not its essence, but one of its operations (*s*). But with submission to so great a name, there is this material difference, *motion* is no more the action of matter than *rest* is; it is equally inactive in both, as hath been shewn. Matter stands in need of an *external cause* to put it into

(*s*) "I confess myself to have one of those dull souls, that doth not perceive itself always to contemplate ideas, nor can conceive it any more necessary for the soul always to think, than for the body always to move; the perception of ideas being (as I conceive) to the soul, what motion is to the body, not its essence, but one of its operations; and therefore though thinking be supposed never so much the proper action of the soul; yet it is not necessary to suppose that it should be always thinking, always in action. That perhaps is the privilege of the infinite Author and Preserver of things, who never slumbers nor sleeps; but is not competent to any finite Being, at least not to the soul of man. We know certainly by experience, that we sometimes think, and thence draw this infallible consequence, that there is something in us that has a power to think; but whether that substance perpetually thinks, or no, we can be no farther assured than experience informs us." *B. 2. ch. 1. sect. 10.* The reason why it is improper to refer to experience in this case, will appear immediately.

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motion, or bring it to rest again; but the soul doth not want an *external mover* to set it a thinking. And therefore there is no room to run a comparison between the action of the soul, which necessarily springs out of its own nature, and the motion of matter, which must be excited in it, by *some Being* not material. This looks as if *action* were equally extrinſick to them both; or as if it were as natural for the soul to be without action, as for matter to be without motion; which is to pervert our juſteſt conceptions of ſpiritual ſubſtance.

Befides, allowing Mr. *Locke's* acceptation of the word eſſence, that it is the real, internal, but generally in ſubſtances, unknown conſtitution of things; it will not follow that every thing is ſeparable from ſubſtances, which is not this real internal conſtitution, as he ſeems to take for granted. The properties that immediately flow from the internal conſtitution of things, are as inſeparable from them, as that conſtitution itſelf; and we can as little conceive the thing without theſe properties, as without that conſtitution. *Diviſibility*, figure, magnitude, are not the internal conſtitution of matter, but properties neceſſarily flowing from it; and yet we can as little conceive matter without theſe, as without its own internal conſtitution; that is, we can as little conceive it without theſe, as *without ſubſtance*. This muſt be ſo; for it is by theſe that we conceive it all to be a ſubſtance, or to have an internal unknown conſtitution. And for a like reaſon, activity and perceptivity, by which powers alone we diſcover that there is a ſubſtance different from matter, and which is the neceſſary ſubject of their inheſion, muſt be in the mind, even previous to the internal unknown conſtitution of that ſubſtance; as neceſſarily as it, and with much more clearneſs than an *unknown thing* can be. If it were pardonable to run ſo high, I might ſay that thoſe very powers of activity and perceptivity, which are not the internal unknown conſtitution of ſpiritual ſubſtance, are yet inſeparable from the *neceſſarily exiſting ſpirit*; and the conſtant exerciſe of them alſo; as Mr. *Locke* obſerves, in the place laſt quoted from him.

But then, as to his acceptation of the word eſſence; as it ſeems not juſt in itſelf, ſo, I think, it is inconvenient in philoſophy. The word, *Being*, by which he explains eſſence, rather imports the actual exiſtence of a thing, than its internal unknown conſtitution, as hath been obſerved. Thus Dr. *Clarke* calls his excellent book, *A Demonſtration of the Being and Attributes of God*; that is, a demonſtration that there really exiſts a God, and what his attributes are. It would have ſounded ſtrangely to have

said, a demonstration of the essence, or internal unknown constitution, &c. And then, if substances have unknown essences, and other things have not; it will either follow, that there are two different species of *essences*; or that other things besides substances have *no essence at all*. This hath thrown Mr. *Locke* upon the distinction of *real* and *nominal essences*; which, though it hath obtained, since he wrote his Book, yet I humbly beg leave to say, I do not see any service it hath done to philosophy. And this again hath thrown him upon the absurdity of asserting that all our *moral* and *mathematical ideas*, those of virtue, vice, justice, temperance; a circle, square, cube, triangle, &c. (things of as *fixt* and *immutable* natures, as any that can be named) having only according to his distinction, nominal essences, are nothing but the mere arbitrary compositions of ideas in our minds: which admitted, would be of the greatest *disservice* both in *philosophy* and *practice*, as shall be shewn elsewhere.

XXIII. This farther may be said for those, who place the nature of the soul in thinking, and suppose it to think incessantly, (taking thinking in the sense of being always percipient of some idea or other) That it is impossible to shew the contrary, even in this state of union with the body; though it hath been here allowed, and often supposed, to avoid unnecessary debates in improper places. Who can say that ever he found himself in a state of unconsciousness; or when there was no idea at all subsisting in his mind? Indeed it is contradictory that any man should so surprize himself, impercipient to wit, of all things, with respect to the *present time*: for he is conscious by supposition, and reflecting upon an unconscious state. And as to the *past time*, he cannot have any memory of such a state: for whether ever such a state *was*, or *was not*, it is either way a contradiction that he should remember it; and he cannot bring an argument for it, from his not remembering of it. If a man came through a dark room, he may be certain there was no light there; for his eyes were open, and he missed the light: but if a man passed an hour of unconscious existence last night, there is a wide difference. He did not perceive an absence of consciousness then; nor can he now; since he could do it but by remembering it. He hath not two distinct consciousnesses, one to be extinguished, and another remaining to perceive the absence of the first. He doth not perceive at the time, and therefore cannot recollect afterward the last thought he was conscious of, at the beginning of the blank, nor the first upon emerging out of it, (to be the two ex-



extremes, as it were); nor the distance and length of time betwixt. By Mr. Locke's own arguments concerning the idea of duration, he must think these two extremes contiguous; and therefore conclude, that he had been conscious without intermission. It is easy for a man to confess, *that he hath one of those dull souls, that doth not always perceive ideas*: but I beg leave to observe, that this *modesty*, which is designed to pass for an argument, is somewhat *inaccurate*; for he confesses a thing for certain, which he can never be certain of. It is not in the power of the soul to become impercipient of ideas at pleasure: and were the thing effected, it would be the sign of an ill disposed body, and not of the dulness of the soul. It is strange enough to appeal to experience (*t*) for the reality of a state, which by supposition, is an utter negation of all experience. It is true, the argument is very good, that a man cannot think at any time, waking or sleeping, without being sensible of it (*u*): but this respects the present time, and is far from concluding, that a man cannot think sleeping or waking, without retaining the memory of these thoughts afterward; which yet is the thing designed to be concluded by it. Why else should experience be alledged, which is the memory of things past? It were to be wished that he had told, what author it is that asserts, that the soul in a sleeping man thinks, without being conscious of it; upon which he asks the question, Whether, during such thinking, it has any pleasure or pain, or be capable of happiness or misery? and adds, *I am sure the man is not; no more than the bed or earth he lies on* (*v*). Because it is strange, if any man put him to the trouble of confuting this con-

(*t*) — “And last of all sound sleep closes the scene quite, and puts an end to all appearances. This, I think, almost every one has experience of in himself, and his own observation without difficulty leads him thus far.” *B. 2. ch. 19. sect. 4.* But this is only experience of having no memory of consciousness then, which doth not infer that we had no consciousness then. When an Evidence makes oath, that his memory doth not serve him so far, how much proves he by this? Nothing surely on either side. He only owns that the point in controversy might have been so, or otherwise, for any thing he can remember. Mr. Locke says, (*ch. 1. sect. 10.*) “the question is about a matter of fact.” To this I reply directly, the question is about a matter of *not-fact*; about a negation of all fact. Every body allows we are generally conscious; this is not the question then: But if we are sometimes without consciousness. It is absurd to say, we forget our unconsciousness; it is absurd to say, we remember our unconsciousness. Where is the matter of fact to be testified to then? Or how is experience applicable? Let a definition of experience be given.

(*u*) *Ch. 1. sect. 10.*

(*v*) *Ibid. sect. 11.*

tradition, with the supposition of *Castor and Pollux, Socrates and Plato*. The position his adversaries maintain infers no such contradiction; nor justifies another to infer it for them. There is certainly a great deal of our past consciousness, which we retain no memory of afterward. It is a particular mark of our finite and imperfect natures, that we cannot become conscious of all our past consciousness at pleasure. But no man at night would infer, that he was not in a state of consciousness and thinking, at such a certain minute about twelve a-clock of the day, because now perhaps he hath no memory what particular thought he had at that minute. And it is no better argument, considered in itself, that a man was not conscious at such a minute, in his sleep, because next morning he hath no memory of what ideas were in his mind then. A man cannot be conscious of the last idea he hath in his mind when he falls asleep; the most he can do here, is to recall the last idea he hath any memory of: but this doth not prove it *the last*. We have rather memory and experience of our sliding gradually from a state of *waking*, to that of a *sleeping consciousness*: and though the particular idea that divides the one kind of these consciousnesses from the other, is not assignable; for there is really, I believe, no such idea, but a gradual transition, or degenerating of the one state into the other; yet if we are casually awakened a little after our falling asleep, and take time to observe, we shall easily enough trace back the last ideas and consciousness that occupied the mind, for some little time at least. Just so, if we take time in the morning to reflect, before we let in the thoughts of business, and our familiar waking ideas, to efface the slender impressions and images made in sleep, we shall easily discover some of those that occupied the perceptivity last. And the same thing happens at any intermediate time, due attention being given, and waking thoughts being kept from rushing in too suddenly. And since this happens at any time indifferently, it is at least a probable argument, and repeated experiment, as it were, which when duly made, always succeeds, and shews that the matter of fact is probably as those philosophers suppose it (x).

(x) Mr. *Locke* doth not represent the objection right in his *Seet. 14. ch. 1. b. 2.* It appears from this, that it is not only not impossible, but easy, to forget on being awakened, what we were dreaming the minute before. And due care being taken, it is certainly also not impossible to observe it in many cases. A very remarkable Author, writing on this subject, hath these words. *I suppose the soul is never totally inactive. I never awaked, since I had the use of my memory, but I found myself coming out of a dream. And I suppose they that think they dream not, think so, because they forget their dreams.* M. R. B. in his defence of the soul's immortality.

XXIV. Though the point were not to be accurately determined on any side ; probability inclines most to the incessant action and perception of the soul, even in this state. There is nothing more common than to remember a scene of vision, which we have had in sleep, some considerable time after, from something that then happens to ourselves or others ; and which without this occasion given to the mind, of thus recollecting it, we should perhaps never have recovered. And certainly, at any time before this recovery, the argument, that then the mind was unconscious, because we retained no memory of it, would not only have been bad, but false. Of how much consciousness, and activity of the soul, do we lose the memory every night, because of the slenderness of the impressions, which are easily disturbed ; as the day thoughts rush in ; or because of the shortness of the duration ? *Volucrique simillima somno*, is a very expressive comparison for any thing that is *fleeting* or *shy*. The visions offered to us in sleep, are often independent and without connexion ; probably often designed to contradict each other, and our waking thoughts too ; which makes them to be remembered with more difficulty than our waking thoughts. Yet frequently *these last* have the same disadvantageous qualification, and are difficultly retained. A scene must have a natural coherence to be easily remembered. Memory is chiefly assisted, perhaps, in this state of union, by sensible impressions made on the organ, and there preserved for some time at least. These are fading and transitory, and in sleep mostly clouded over, by the nature of that indisposition ; which is the reason why we cannot then use our past experience, or memory of things ; to convince ourselves that the appearances offered to, or forced upon the soul in sleep, are not in truth existing externally ; for the internal representation is as real, as if the object of it existed from without. But possibly we shall discover a view of a *superior faculty of reminiscence* in proceeding to examine this appearance, which is *independent* of a corporeal organ, or seat of impressions made on the sensory. We are by no means justified in philosophy, to draw weighty inferences, such as that the perfection of rational thinking may depend upon matter, or that the soul may owe its perceptivity and life to that dead substance ; I say, we are by no means justified in drawing such weighty inferences from a perplexed and dark phænomenon, without narrowly examining the nature and circumstances of it, as far as they are accessible to us. And it is not to be dissimulated by Mr. *Locke's* greatest admirers, that his method of reasoning all along on this subject, tends to lead

weak



weak and sceptical men, to make these inferences; not to say that he points out the way to them, by hinting broadly at these inferences himself. It looks as if he not only thought it possible that matter might think, but true that the soul was really matter, when he says, "I grant that the soul in a waking man, is never without thought, because it is the condition of being awake: but whether sleeping without dreaming be not an affection of the whole man, *mind as well as body*, may be worth a waking man's consideration (y)." Then it seems separate souls may sleep. *God differs from his creatures in higher prerogatives, than that he doth not slumber nor sleep.* It is here granted, that while we are awake, we are under a necessity of thinking. If then we were always awake, we should be always under that necessity. — How comes it then that we are not always awake? — Is it the defect of the soul? — This was the *chief point* to have been considered, in order to consider the appearance on all sides. It hath been shewn that spirit hath *no parts*; and therefore it stands in need of no reparation, or re-disposing its parts aright; as the body doth, which consists of parts that are constantly changing, and liable to be disordered. This shews on which side the indisposition lies. Again, we have undoubted experience, that the soul thinks and lives, while the senses are shut up, and can minister nothing; while the body is laid up to be refitted, a mere vegetable system: and I have shewn, that it implies a contradiction to say, we have experience of the contrary. And what is the plain inference from such opposite symptoms? Lastly, allowing all that is allowed, *viz.* that sometimes we sleep without dreaming; is it therefore to be inferred, that sleep is an affection of the soul? Is it not conceivable to any man of *plain common sense*, from what I have said (N<sup>o</sup> 20.) concerning the difference of appearances, that two opposite substances, a *dead* and a *living*, must make by being united; and from what I have said concerning the perceptivity of the soul, in itself not bounded, but limited in its union with body, (see the note (n) N<sup>o</sup> 15.) is it not easily conceivable, I say, from these considerations, that its activity may be quite hindered from being exerted; and its perceptivity entirely impeded, by a farther limitation, (granting that to be the case) without supposing that it is laid up to be refitted, in sleep, as the body is; or making sleep an affection of immaterial being? If a man puts in a bit of

(y) Ibid. sect. 4.

paper to hinder the balance of his watch from beating, or if this is effected by any other disorder of the parts ; it would be improper to say that the immaterial impulse, or power, by which she goes, is then asleep, though it be hindered from having effect.

XXV. There is one argument brought by Mr. *Locke*, which is boasted to be decisive, as fully proving that thinking is not inseparable from the soul. It is, that action may be *remitted* or *intended*, sometimes more and sometimes less ; a variation which it is not conceivable the essences of things can be subject to (z). This is indeed specious at first view, and yet it is a very equivocal argument, and concludes different ways, according to the different acceptation of the word *essence*. He grants that thinking is action, and supposes essence to be the internal, unknown constitution of things, whereon their discoverable qualities depend. Now that thinking or action, which is a known property of the soul, should be the internal unknown constitution of the soul, is a contradiction ; and proving the contrary, is proving what was never denied. But this is not the genuine acceptation of the word *essence*. (See the note (q) N<sup>o</sup> 22.) A late Author hath rightly observed, that *essence is explained by the chief and radical property of a thing, or all the properties of it*. Hence the chief and radical property is the essence of any thing in idea, though the thing should not exist, nor have any internal unknown constitution. *Essence* (as the same Writer remarks) is very different from *existence* : the essence or nature of things is *invariable*, and their existence only *contingent*. From this we may see the fallacy of Mr. *Locke's* argument : he makes essence the internal unknown constitution of things : and because it is contradictory that *thought* should be of the essence of the soul in this sense, he infers it is not of the essence of the soul in the other sense, or so as to be inseparable from it. This is as if I should say, A circle is a figure contained under four equal sides, making four right angles ; but there is no point within this figure, from which all the lines drawn to the sides are equal : therefore it is not the essential property of a circle, that all the lines from a point within it to the outside should be equal. That thought is essential to the soul in the last sense, is easily proved. For it must be essential to one of the two substances, *i. e.* either to matter or spirit ; otherwise the highest perfection in nature must be but merely casual, or an extraneous ac-

(z) B. 1. ch. 19. sect. 4.

cident in the universe : and since it hath been shewn that thought can neither be essential nor accidental to matter, it must be essential to spirit, or such a property as cannot be separated from it without destroying its nature. Or we may argue thus : If thinking is essential neither to body nor soul, how come we at all to think ? Is it by mere accident ? If it is by mere accident, it is possible the soul should never think. If it be said, the soul *lays down* and *takes up* thinking at its pleasure, [by its own power, by its own will, command, or any other way that can be named] it is a direct contradiction. If the soul pleases to take up thinking after intermission, [or if it *wills, commands* this] it must be previously thoughtful. If it be said, it stands in need of some external principle to bring back thought to it ; this is to own that it would never think again of itself, but be a dead inactive substance for ever after such intermission, unless thus restored by some external Being. And the argument must come to this on Mr. *Locke's* hypothesis, if the soul were for any the least time without thought. The power of thinking in a substance once dead, is not to be conceived, because it is contradictory. Life itself consists in being percipient, in this we are necessary. And if we are percipient, we must have perceptions, by the terms. Thus it is very conceivable that the soul should *remit* its activity in thinking, through all degrees, till at length it can *remit* no farther, and finds itself necessary in having some perception or other. Experience confirms this, as far as we can have experience ; and reason evinces it universally : nor can any objection be made to it but only this, that we do not remember all our past perceptions, the weakness of which hath been sufficiently shewn before.

XXVI. Mr. *Locke*, in his way of arguing, takes it for granted, that if a property doth not enter into the internal unknown constitution of a substance, it is separable from that substance ; which still was the main point to be proved : for, as has been remarked N<sup>o</sup> 22. a property which necessarily flows from the internal constitution of any substance, must as necessarily belong to it, as that constitution itself. And there must be such properties as *necessarily* flow from the internal constitution of substances ; Mr. *Locke* owns the discoverable qualities of substances depend on their internal constitution : therefore the property must always belong to the internal constitution of the substance ; that is, to the *essence* of the substance, even in his own sense of the word *essence*. Thus *figure* is but a property



property of matter, and a variable property; for it may be changed in the same individual quantity: yet this variable property *invariably* and *inseparably* belongs to matter. So thinking, (allowing it a variable property) may invariably belong to the soul. And it is only the exercise of the power, not the power itself which is subject to the variation of being *intended* or *remitted*. This doth not make the power itself separable from the soul. If the power of action were separable from a Being, because the exercise of it, or the exerting particular acts, was arbitrary; then activity would be separable from all free Beings, or there would be no such Being: for their freedom in exerting the power would deprive them of that power. But farther, the *exercise* itself of this power is not separable from free or active Beings; since, as hath been shewn N<sup>o</sup> 8. such Beings are not free to act, or utterly to abstain from all action, but to do this or that action by a preference. Again, Mr. *Locke* himself grants, that *thinking is the condition of being awake*. A property then capable of being *intended* or *remitted*, necessarily belongs to the soul, at least for that time: and if we were always awake, that property would always and necessarily belong to it. And since we cannot cease being awake at pleasure, it is not in our power to become unactive at pleasure; or we are necessarily active. And since it is the indisposition of the body only that occasions our not being always awake, it is the indisposition of the body only that hinders our not always exercising the power of activity; allowing the soul were sometimes utterly inactive (a).

## XXVII.

(a) Upon the whole of what is said in these two last paragraphs, the appearance of thinking, or *cogitation*, seems to stand thus. The soul is sometimes in a hurry of thought, and the transitions from object to object are quicker than can be expressed. Then it becomes calmer and considers things at leisure; and it may *slacken* and *remit* its activity more and more, to a certain degree, till it can go no farther upon the side of inactivity; but still it must have some perception or other *in view*. And when we have come this length, if we would endeavour to keep this *one solitary* perception still in view, and be no farther active, we shall find a prodigious difficulty in it; or, to speak more truly, it is impossible with all the *care* and *attention* we can *bestow*. Now doth not this shew us, that when we would endeavour to be inactive beyond a certain degree, *we increase the activity* by that very endeavour? I may compare this effort of the soul to the descent of a pendulum, which can go no lower than a *certain point*; and a great force to descend makes it but rise the higher on the other side. The comparison only halts in this, that the pendulum will at last remain in the *lowest point*; but the soul cannot *rest* in the perception of one solitary idea. It begins motion of itself again, if I may so say, because of its active nature. All this is verified

I shall in the last place take notice of an objection, which possibly may be started concerning the *souls of brutes*. It will perhaps be said,

rified in our own experience. When we compose ourselves to sleep, and resolve to think no more till next morning, the resolution has no effect. The soul hath various and innumerable thoughts still succeeding one another, which we may easily observe; till at length (as I said before) all degenerates into an internal scene of vision and dream.

Let us now suppose that after one dream is ended, another should not succeed, but that in the soundest sleep the soul had no perception at all. Being then an *impercipient substance* (for four or five hours together perhaps) it must be quite dead. If it were not, let any one tell me *what life is*; or wherein it consists? Shall we say it consists in the *power of living* only? That is absurd. If the soul is once without perception, how could it exercise the power to recover its perception? If we say the matter of the body makes it percipient again, or brings back its perception to it, that is no less absurd. If the matter of the body acts upon it, it will perceive the action; but that is not to *make it percipient*, or to bring back perception itself to an impercipient substance. How should the soul perceive the action, if it were not awake? Or how could it be awake without perceptions? The soul cannot be asleep, if it is a *simple uncompounded Being* that stands in need of no reparations; nor could it be always awake without always having perceptions. The very reason then why the soul is percipient of the action of our bodies upon it, when we awake, is *because it is always awake*, and always percipient. In a dream, when it is certain that the soul is *percipient and awake*, it is yet not percipient of any external touch upon the body. Why? The action is really not communicated to it. This familiar instance shews us that the soul is awake, but the body is unfit to communicate action to it. How can it be said then that the body by acting on it *makes it percipient*, or brings back its perception to it again; when it is plain that it is percipient already, but that the *nerves or spirits* are in no capacity to act upon it? This instance likewise shews us, that the soul would be percipient of any external touch upon the body while we sleep, of which it is percipient while we are awake; if the action were communicated to it; and consequently it discovers to us, by way of experiment, on which side the indisposition lies, and that sleep is not an affection of the whole man, *soul as well as body*, as Mr. Locke insinuates.

In a word, there is no supposing the soul to be impercipient in sleep, but by supposing the perceptivity of it to depend upon matter, which I have shewn in many places of this section to be a contradiction: or by supposing that it sleeps in its own nature. And we cannot suppose that it sleeps in its own nature, but by supposing that it is a *compounded thing*, made up of parts of different natures, some of which fly off, or wear out, like those of the body; that is, by supposing, I think, that it consists of matter and spirit. But this is not only false, as has been shewn in the last section; but I would argue concerning the *active half* of such a *compounded soul*, as I have done already, when I supposed it uncompounded. The *pure immaterial part* would never need sleep or reparation. And thus I would pursue the argument through all divisions, till it were owned that either the soul was all *matter*, or that a *pure uncompounded spirit* needed no sleep nor reparation. Now from all that hath been said it appears that the concessions which were made in the beginning of this section, needed not have been made; or that they were *suppositions*, or only concessions *pro tempore*.

since these are immaterial, by the second section; simple, and therefore indissoluble, without an act of Omnipotence, by the third; and since the fundamental argument in this section, That two powerless substances can never beget power between them, nor their union be the cause of *that* power, is as applicable to *these*, as to the souls of men: it will follow that if the souls of brutes super-exist the dissolution of their bodies, they must be active and percipient as much as the souls of men are. I might answer to this first, as in the last paragraph of that second section, to a like objection; that though this should follow, it would not, certainly, infer that the human soul is unactive and impercipient after death: but rather conclude the contrary more strongly. But in this case that is always supposed an objection, which in effect proves none. It is like raising a terror, which when the first surprize is over, appears to be without foundation. Men who hold the immateriality of the soul, need not be embarrassed (as it is said they are) how to dispose of the immaterial souls of brutes, or be concerned what powers they may have after the dissolution of their bodies; but leave all to the Being who made them. But secondly we may observe, how far the argument in this section is not applicable to the souls of brutes. It is to be observed that the activity of the human soul is of *two kinds*; that which is exerted in moving the limbs spontaneously; and that power whereby we turn back our perceptive capacity to our past perceptions, or bring them in view again, so as to compare them together. The perceptivity of it is also twofold; for it is percipient of the action of matter upon itself, and percipient of its own internal operations in thinking. See sect. 1. N<sup>o</sup> 1. The last kind of activity, and the perceptivity resulting from it, is much more noble, more indefinable, and indefeasible, than the first. Now, though brutes have the first of these powers in common with men, and the perceptivity belonging to it; yet they want altogether the second, and therefore the perceptivity resulting from it: for it is in that power alone that the rational nature consists; since we are neither rational nor free in any other respect. In the discovery of truth, and all the acquisitions of knowledge we make, we are active only in bringing together and methodizing our ideas by this power; and we as necessarily see their agreement, diversity, or several relations, as we see external objects with our eyes, when open; all which shall be made appear in due time. And in this section the activity reasoned from, insisted upon, and which forces the conclusion, is this *second sort*. As I said, it is more indefinable, and more extensive. The

activity



activity of the soul whereby it moves matter, and is percipient of the manner how that affects it, is soon impeded: but the other sort is often not the less vigorous. When a man lies down fatigued, he can still think with pleasure on many subjects; his reflexion travels over the globe, turns back to past ages, and dives into futurity. And when the body is quite wearied out, consciousness and perceptivity do not leave the soul. Since therefore the consciousness and activity reasoned from here, in the several instances, is *our own* as we feel it within, and arising from the rational power of the soul; the conclusion will not be applicable to the immaterial part of brutes. They want this power and perceptivity in a state of union; therefore we could not have argued for it in a state of separation: the argument of the two powerless substances would never bear us out. The power must appear in the union, that we may be sure it belongs to one of them in separation, since it could not be produced by simply uniting together two things void of such power. And when neither part hath the power in the state of union, as is the case of the two substances in the brute nature, this reason cannot infer it when they are separated; whereas the objection supposes it does. They who run the parallel between the human soul and that of brutes, suppose still the same powers in both; but surely rationality must be founded in some power, which the brute soul, as such, has not. This argument therefore doth not prove the activity of the brute soul when separated: though if any one could prove it, he would do no disservice perhaps to philosophy (*b*).

(*b*) If the brute soul super-exist the dissolution of the body, we cannot conceive it without the perceptive capacity, as to external objects; and that in a greater degree than when confined to it; but even here it is inferior to the human soul. It is not percipient of harmony in sound; of proportion or beauty in figure or colour; of order in succession, &c. It seems rather percipient of the simple existence of things, than of their manner, order, &c. of existence. As also, if it super-exist; it is easier to conceive that it must have some kind of activity, than to determine what that is; for though it hath the power of moving the body, it hath then no occasion to exercise that power. And in this respect also it is much inferior to the human soul; though that doth not impress a greater motive force on the matter of the body, yet it impresses it in consequence of reflection, and therefore on a thousand different occasions, in which the brute-soul is unconcerned. It seems rather to move the body in consequence of sensation, or of being first acted upon, and hath not so much the principle of action in itself. But all this will be better understood hereafter.

## S E C T.

## S E C T. V.

*The several arguments against the immateriality of the soul, urged by Lucretius and others, examined, and shewn fallacious, as applying the equivocal symptoms of a disordered organ in a state of union to the soul itself.*

**A**CCORDING to the method proposed, the objections against the immateriality of the soul are next to be considered. These have been all mustered up (or the greatest part of them at least) by *Lucretius* near eighteen hundred years ago; so that now they are become common topicks, and a kind of *classical arguments*; and as they fall in with our prejudices, they are easily understood, and therefore in every body's mouth. The wit and elegance of this author, and the charms of his numbers, recommend these objections particularly to those who admire politeness in writing, more than accuracy in thinking. Hence they have all the advantages of becoming popular and gaining ground. Now, though the truths evinced in the preceding sections render any difficulties of this kind not very formidable; yet these considerations make it necessary to apply the principles laid down above to the discussing our particular prejudices, and the arguments that have been raised from them. Some men perhaps cannot take this pains for themselves; and the greatest part have their thoughts taken up about quite different matters: and yet both these sorts of persons might be willing to take a review of this subject, if things were set in right order before them. The Sceptic's whole art in this affair has been to apply ambiguous appearances to his own side of the question. By ambiguous appearances I mean, *those phenomena in a state of union, which seem at first sight to infer the materiality of the soul; but upon a nearer view are found to be very consistent with its immateriality.* The symptoms and disorders of the body, which the soul must be sensible of in a state of union; because the soul must be sensible of them, have been artfully given out for the symptoms and disorders of the soul itself:

where

where it is obvious at first view that, if once we allow the body to be liable to disorders, as most certainly it is, things could not have been otherwise, let the soul be ever so much a *pure spiritual substance*. And it will farther appear, as we go on, that even some of those *ambiguous appearances* which have been brought to prove the materiality of the soul, afford a strong and clear proof of the contrary. However, that all objections may be taken off with more advantage and clearness, I beg leave to lay down the following principle, and to mark particularly the *strength and extent of it*; and this the rather, as it seems to be forgot by the generality of sceptical Writers; though it is as old as reason itself, an eternal truth, and leaves no room for doubting: but these men very deliberately admit into their reasonings that a contradiction may be possible; and think an objection not the less strong, though it proceeds on this supposition. The principle is this:

II. It is impossible the effect should be perfecter than its cause, either in *kind*, or in *degree*. For if the effect were perfecter in *degree* than the cause of it, all that degree, or excess of perfection in the effect, which is not in the cause, would be really uncaused; or it would be a perfection effected, without being effected by any thing: that is, effected and not effected: And if the effect were perfecter in *kind* than the cause that produced it, or contained, not only a greater degree of the same kind of perfection, but quite another and superior kind; then that whole *species* of perfection, and not any degree of it only, would be uncaused, or the effect of nothing; which is yet a greater contradiction than the former. Any one will find, by pursuing this in his own mind, that if it could be true, nothing could be false, nor nothing impossible. No man could assert a thing, which another could not as justly deny. If the cause could communicate to the effect what it had not in itself, then any cause might bring to pass any effect, be the disproportion between them ever so great; or could limits be set, where this giving away what it had not, or doing what it could not, would end. And at last, all would end in this; that in reality no cause was necessary to produce any effect: for one part of the effect might as well exist without a cause, as another. And then I suppose it would be needless to philosophize farther about any thing. If it were possible that any one truth could *fall*, or be *not-truth*; no other truth could be trusted to: but rather all truth would fall with it; because all truth proceeds equally from the same eternal Reason or Mind, and is equally



equally necessary in it. And the final result of all would be, the denying this eternal Mind itself: and then indeed an endless night of darkness would cover the understanding, and the difference between truth and falsehood cease for ever. For as eternal Truth leads to an *eternal Mind*, where it was eternally known, and subsisted: so, supposing that away, the reason of things fails. And what man can endure to think of a *necessary absence of reason in nature*, an universal defect of truth! Yet this abhorred confusion doth the taking away the above principle lead us directly to. The Sceptic could not then have a reason for denying. *Denying supposes truth*; some certain principle: and therefore an *eternal Reason*. So inconsistent is he with himself! to be consistent, he should be for ever silent. His very objections suppose the existence of that eternal Reason, that *adorable infinite Mind*, the non-existence of which he would prove by them (a).

III. Now as all truth is consistent with itself, and as the denying this principle leads to downright Atheism; so we may observe by the by,

(a) It will be in vain to object against the principle here established, That sometimes an Artist may make a piece of work, surpassing his own skill and idea; for it is plain that, truly speaking, this is impossible. Though his work should surpass his art, it cannot be said that he makes it surpass it: he must then have art to do the thing which he had not art to do. A lucky hit, though commonly called chance, is really a concurrence of some cause, or causes, unknown to the Artist; and this indeed may give his work a degree of perfection, which he did not design, or could not design; but then this excess of perfection in his work above his art, is as much the effect of these *concurring causes*, as the perfection of it below that excess, was the effect of his art. In a word, strip this objection of every concurring cause, and it becomes a direct contradiction: take in concurring causes, and it becomes no objection. The mistake is; we ascribe a part of the effect to the wrong cause, and thence to no cause at all: "The man produced the effect; he did not, or could not, design it all; therefore what exists more than he designed, is produced by nothing." This is false logic. The effect sometimes falls short of the design (as it were a man shooting at a mark); there is a reason for this: sometimes it goes beyond it; there is a reason for this. Nothing can be, for which there is no reason, and of which there is no cause. We take our aims; but are not infallible in the direction of spontaneous motion by the act of the will. I have shewn we do no more. The rest is committed to another agency (N<sup>o</sup> 24. sect. 2.) and performed by a steady, unerring course of nature (see the Note (≈) N<sup>o</sup> 35. sect. 2.) and every thing comes out regular, and in proportion to its causes. Though the effect doth not answer our design, to which our conduct was disproportionate; it answers to nature's steady laws. All this will be applicable to the objection of the painter and his colours. Where free causes intervene to disturb the effect there is no objection, or dispute.

that (*vice versâ*) from the force of this principle it appears an express contradiction to assert, that there is no other cause but dead matter in the world. For supposing it some way to have got existence, and not examining how it could be moved; if once there had been nothing but matter, any way moved, no effect could have been produced, nor no perfection existed, beyond what is in dead matter; nor active power ever have been exerted: and from this again the necessity of an immaterial Being, the cause of the material Universe, is obvious. But not to insist on other things, what concerns the present purpose is; it follows from this principle, that it is *absolutely impossible* the mechanism of the body, or mechanical motion, howsoever excited, should be the cause of life and spontaneity, as it appears in the meanest reptile: and the impossibility is extremely heightened, if we ascend up to the nobler activity and perception that is in the soul of man. For matter then by being *moved*, must acquire a power of moving itself; from being *inert* and *passive*, it must become an agent; from being *necessary*, it must rise to the perfection of freedom; from being *dead*, and without all sense, it must begin to be percipient and conscious; to imagine, reason, distinguish, form abstract notions; to be wise, prudent, moral, &c. which are all perfections, not only surpassing mechanism and mechanical motion in degree; but infinitely excelling it in kind. This is a notion so grossly absurd and unphilosophical, that whoever considers it seriously, would be tempted to think, he is combating a creature of his own imagination; and that surely no man was ever foolish enough to affirm it: yet it is what the *Epicurean* Atheists directly assert (*b*); what all sorts of Atheists must necessarily suppose;

(*b*) I have before observed that *Lucretius* ascribes all productions and effects to chance.

*Nam certè neque consilio primordia rerum*

*Ordine se quæque, atque sagaci mente locârunt, &c.*

Lib. 1. ver. 1020.

Compare this with what he says, lib. 2. from ver. 864. to ver. 990. where having spoke of equivocal generation, and the change of matter in the bodies of animals, he adds,

*Jàmne vides igitur, magni primordia rerum*

*Referre in quali sint ordinis quæque locata,*

*Et commissa quibus dent motus, accipiântque?*

Ver. 882.

*Illud in his igitur sædus meminisse decebit;*

*Non ex omnibus omnino, quæcunque creant res*

*Sensilia extemplo, & sensus me dicere gigni:*

*Sed magni referre, ea primum quantula consent,*

Y

*Sensile*

suppose ; and what the present Sceptic would still maintain, if possible, under some disguise or other. If this could be ; all that is said in the last paragraph would follow : we could never be wrong in affirming any thing of any thing : perception, spontaneous motion, reason itself and virtue, would be perfections effected in matter, precisely by nothing, by no cause at all ; for the cause assigned is as void of these perfections, as no cause, or the negation of all cause is.

IV. As

*Sensile quæ faciunt, & quæ sint prædita formâ,  
Motibus, ordinibus, posturis denique quæ sint :  
Quarum nil rerum in lignis glebisque videmus.  
Et tamen hæc cum sint quasi putrefacta per imbreis  
Vermiculos pariunt ; quia corpora materiai  
Antiquis ex ordinibus per mota novâ re,  
Conciliantur ita, ut debent animalia gigni.*

Ver. 890.

This is a strange piece of reasoning. No man can read it without seeing the absurdity of it. The Sceptick pretends to be shocked with the credulity and ignorance of the world. From this one would imagine that nothing could be advanced by him, but what was highly reasonable, and evident in itself ; yet no man has a greater share of this credulity, nor says such shocking things. *A bit of wood, for instance, may become a living Being : a particle of matter if placed on this side produces nothing ; but if placed on the other side, it has life and motion : knowledge and reason are only the result of a different order or situation of these dead atoms.* If his Adversaries spoke thus, they would justly deserve that ridicule and contempt with which he treats them. The reason why *Lucretius* advanced all this, was (as he says) to free men from superstition and error ; and the like things are still maintained under the same pretence ; but it would be better, if the Sceptick (according to the character he first sets out with) would broach no hypothesis of his own ; if he would content himself with pointing out to other men wherein they are wrong and shewing the weak sides of the arguments they adduce. Truth would thus be no loser ; men would either reconcile difficulties, or relinquish the principles whose consequences were evidently absurd. But when it appears he hath other views, an itch to maintain something of his own ; his pretences, though specious, become suspected. And yet it was always thus ; we never had a disinterested *Examiner* of other men's notions. The *Academick* himself will not keep within his own province ; he has a favourite scheme, contrary to the neutrality he promises to observe. When a *Sceptick* turns *dogmatist* in favour of his own hypothesis, nothing can be more out of character : and yet I am apt to think, no man ever set up to be a *cool Doubter* but with the view of being a *swarm Zealot*. This is an artful way to prepossess the minds of men : an *Enemy* to credulity and vulgar schemes is always supposed to have a secret fund of better knowledge. But let the passage I have just now quoted bear witness, how we are rescued from superstition and popular errors. Let me seriously ask, Is superstition overcome by believing contradictions ? On the contrary, if once we admit these, we are then fit to receive any creed in philosophy.

We



IV. As to the disguises, under which sceptical men would still support this notion; however they may seem at first view to perplex the point; yet they leave the assertors at last under a necessity of maintaining the same undisguised absurdities, and of undertaking the defence of all the contradictions just now mentioned, in N° 2. For either they must say, that all and every part of matter is free, thinks, reasons; which is shewn before (Sect. 3. N° 8.) from the endless divisibility of it, to be monstrously absurd (c); as every one is conscious from his own experience; and which therefore the *Epicureans* durst not assert; but strongly maintained the contrary (d). Or else they must say, that the bare putting together atoms dead and senseless, is the only cause why the compound be-

We may go farther and observe, whatever the *Pyrrhonist*, *Sceptick*, or *Academick*, may pretend, the solicitous mind of man hates to be in suspense, and will believe something, or frame something to be believed. A certain great Author banters us for *taking party*, and compares us to drowning men, who catch at any thing to keep themselves above water: and yet the same person frames a party, and *takes it*, to keep himself from being swallowed up in the depth of bottomless doubting; he tells us that there are *Enthusiasts* on all sides, and Mr. *Bayle* has observed that there have been *Martyrs* for infidelity. So impossible is it to believe nothing; or not to believe something with vehemence! Now, since it is certain that the rational mind (as such) hates to remain in suspense, and goes into some conclusion or other; this consequence plainly follows, *That we should be as cautious in doubting as in dogmatizing*: It is easy to hoist our sails, but uncertain whither the winds and waves may carry us. The direct contrary of this conclusion hath been admitted in all ages: Every man supposes himself qualified to be a *Doubter*; want of attention will make us think so; but the question should be considered, how we are to steer next? for, as I have said, we will *take party*, and go into some conclusion or other. Without this caution errors will be multiplied instead of being corrected; and it is to this want of being qualified to doubt aright, that the several denominations of *Atheism* are owing. There is but one way by which the vessel can enter the port again; but a thousand ways she may miscarry in the wide ocean. Contradictions, like rocks and shelves, are easily stumbled on. *Epicurus* stumbled on chance and atoms; *Strato* on matter and gravity: *Aristotle* himself on an eternal and necessary vicissitude of things; that is, as I take it, a *changing necessity*. It had been better to have kept to his Master's doctrine. From all this it appears That it is not so easy to doubt as is generally imagined; and that there never was any such thing as an *Unbeliever*: these cool men have their different creeds, so much the more shocking as they are less common.

(c) No matter can be one thinking substance; because, as Dr. *Clarke* observes, no matter is one substance, but a heap of substances.

(d) *Lucretius* says, in the place last cited, at ver. 864.

*Nunc ea, quæ sentire videmus cunque necesse 'st*

*Ex insensilibus tamen omnia conficere*

*Principiis constare: ———*

comes endued with all the powers of a human soul; which is really to return to the *Epicurean* scheme, and to be pressed with all the nonsensical contradictions above. It is the very same thing to assert, that the repetition of the negation of cause multiplied so many times, becomes a cause. This contradiction is not lessened by taking in figure, position, motion; since the compounding atoms are still dead and senseless, by supposition, and by necessity. *Lucretius* took in all these, long before the modern Sceptic thought of them (e). Nay farther, this contradiction is not lessened, by saying infinite Power puts the dead parts together, or moves them thus mechanically. This is but borrowing the authority of a word, to make a contradiction pass. It is the same thing as saying, infinite Power may bring a thing to pass, without applying power or efficiency, to produce it. Infinity of Power doth not exclude reason; it is infinitely reasonable, and therefore cannot be a refuge for a contra-

(e) *Sed magni referre, ea primum quantula constant  
Sensile quæ faciunt, & quæ sint prædita formâ,  
Motibus, ordinibus, posituris denique quæ sint:—*

It will be urged here, that often we see a material compound have properties, that are not to be found in the parts of it: as it may have a spherical, cubical, &c. figure, which the parts have not. To this it is answered, though the parts may not have the same figure with the whole, they must have some figure; and so in other things. From this it would follow only, that though the parts may not have the same thought, perception, or volition with the whole; yet they must necessarily have *some thought*; and this is not only granted, but proved above (Sect. 3. N<sup>o</sup> 8.) Here let me mark the disingenuity or the ignorance of Dr. *Clarke's anonymous Adversary*. He says a clock hath power to tell the hours, which none of the parts separately have. It was shewn (Sect. 2. N<sup>o</sup> 14 and 15) when speaking of machines and mechanical motion, that the figure, order, position of parts, or any other possible quality matter can be endued with, would not simply make the clock move any how, without the immaterial power of gravity constantly acting. Where is the argument from this for the materiality of souls? And all that is effected is, that the index is regularly moved, by this uniform action of gravity, impressed partly on the *poise*, and partly on the *pendulum*; which sure is no power in the clock. It is a power from without, impressed on dead matter, and communicated by *resistance* to other dead matter. This is no power in the machine; for it hath no power to do otherwise. This is that very particular in mechanism, and inseparable from it, that destroys the Sceptick's scheme. As to telling the hours, all that is in this *equivocal expression* is, that by this mechanical motion time is in some manner measured to us. But doth the *system of wheels*, by its own power and skill tell the hours? That is the idea designed to be conveyed under an ambiguous expression. The Author might, by the same philosophy, have assured us, that the earth hath a power of making night and day, and of placing the sun in all the signs. These, in short, are such powers as consist in passivity only; that is, powers that are not powers.

diction.

diction. But this is all the use the Sceptic makes of it: after it hath served his end in such absurdities; infinite Power is but a word, like other things, and the infinitely powerful Being nothing. Lastly, let us observe, that it is perfectly absurd to say infinite Power may superadd a property to a substance incapable of receiving it, (N<sup>o</sup> 14, 15, and 26. Sect. 1.) that is, incapable of being the subject of it. The substance being first divisible, and then the parts of it still remaining dead; the property can have no subject of inhesion but the junction of dead parts to dead parts (*f*). But, as hath been said before, that the junction, putting together, or cohesion of dead particles, itself a property, should be the subject of another property, is an absurdity Mr. *Locke* himself hath sufficiently exposed. Whence it is plain, whatever artifice or shift men may use of in affirming the materiality of the soul, they will always be liable to the contradictions shewn above: and from the principle there laid down, all the objections against its being immaterial, drawn from the symptoms of mechanism, and mechanical motion in the body, lose their force at once; without recurring to what was said N<sup>o</sup> 13. Sect. 2. which cuts them off upon other accounts. However, we shall go on to particularize them.

V. The first difficulty men pretend to have in allowing the soul to be material, is what hath been accidentally mentioned elsewhere (Sect. 2. N<sup>o</sup> 32.) viz. that they cannot conceive *when*, or *how* immaterial substance could be joined to matter in the bodies of men, beasts and insects. But to shew the weakness of this objection, we need only consider what hath been already proved to be done even with regard to the bodies of animals, and by whose power. The bodies of all animals, man's not excepted, are brought up from things of imperceptible magnitude, through various stages, under different forms, and with different methods of œconomy; so that often the body of the same creature seems as dif-

(*f*) The necessity of what is here asserted will appear thus. Suppose the *thinking compound*, or *whole*, divided into two halves (as all matter is divisible); if both these think, divide them again, &c. If all the parts *still think*, all matter is a thinking substance; and what multiplicity of consciousness must there be in a material soul! Or if we stop at any division, the last thinking *whole*, resolved by division into unthinking parts, had nothing but the *junction*, or adding together of these parts, to be the *support* of the superadded property, of thought, reason, &c. which, notwithstanding of the word *Omnipotence* inserted, is as contradictory, as any other way of asserting the materiality of thinking Beings.

ferent



ferent from itself, as from that almost of any other (g); and all this by the constant intervention, and real action, of infinite Power exerted. The inexpressibly fine mechanism is the work of Almighty Wisdom; the mechanical motions are his impressions; and thus spontaneous motion itself is effected. How can we think then, when his Power is present in forming and moulding their bodies, and ready to be subservient to their spontaneous motions, *that he should forget to add the spontaneous principle, or that there should be difficulty in it.* This is the chief part of the work, and principally intended. We could scarce conceive even of a man, when he forms the parts of any machine, that he should forget the power which all the rest suppose, and for which they are designed. The Power of the Creator is incessantly exerted upon all the inanimate parts of the creation; and must it not be greater in proportion, when exerted upon the living and rational part of his works? And then how high will that proportion rise? It shall be shewn, or rather it is self-evident, that the wide extended Universe, though stretched beyond the bounds of imagination, with all the wonders of wisdom, and power in it, is solely designed for the sake of *intelligent Beings*, to train them up for a rational eternity. These are the proper *Eleves* (or pupils, if I might so say) of a Being himself infinitely rational. His care therefore about these, either in uniting them to, or disengaging them from matter, and in all other respects, must (if I may venture so to speak) be the principal part of his work, his ultimate view. *Lucretius* says, *Esse animas præsto deridiculum esse videtur.* But what is there ridiculous in it, except thinking as he did that they were *ready* by chance. This indeed is absurd enough, but the absurdity is of his own making.

VI. The next argument for materiality is, That we see the soul generated with the body, grow with the body, and at last decay with the body; at first tender and weak, then robust, and in the end feeble and worn (b). I observed before, when speaking of spontaneous motion, (Sect.

(g) The body of the common frog goes through eight or ten different shapes, before it is perfected; not to mention the transformation of insects, some of which first *creep*, then *swim*, and at last *fly*: and the microscope shews us that nature is uniform and consonant to herself in the formation of all animals, which are very different in their *first stamina*, from what they are in their last perfection.

(b) *Præterea, gigni pariter cum corpore; Et unâ Crescere sentimus; paritèrque senescere mentem.*

(Sect. 2. N° 18.) that the reason of the imperfection of it in infants, wounded men, decrepit old people, and generally all those who labour under any kind of infirmity or disease, is the ineptitude of the instruments and apparatus of motion ; that all on the part of the *will* is equally disposed then as at other times ; that the common sense of mankind doth not allow, or imagine it possible, that disease or age should affect the will, or weaken the intensity of our desires ; and that we are subject to no decays or depredations of time in respect of that which is the proper activity and power of the soul. But the *Epicurean* hath palmed upon us the accidents of the body, as belonging to the soul itself ; because by the law of their *present union*, it is forced to sympathize with them. It was while he looked upon his *arms* that *Milo* wept, and cried ; *At hi quidem jam mortui sunt*. He did not lament the decay of his soul, but his muscles shrunk up, and sinews unstrung. It is the body of the elephant, that supports the turret and fighting men. Let us suppose, as a possible conjecture only, that the body hath an *immaterial mover*, which is obliged to move it, by the instrumentality of organs, and the laws of mechanism ; and all these appearances become *equally necessary*, as on the supposition of *Lucretius's material movers* : which shews us how *equivocal* these appearances are ; and how *sophistical* it is to build a conclusion upon them. But when we call to mind the principle laid down in N° 2. and the reasoning upon it N° 3. (That it is impossible matter, by being moved, should arrive to the power of moving itself, &c.) that which was only a possible conjecture, becomes absolutely certain ; and the sceptical conclusion demonstratively false. Farther ; let us put the Sceptic in mind here, that though there is a nobler species of activity in the human soul,

*Nam velut infirmo pueri, teneroque vagantur  
Corpore ; sic animi sequitur sententia tenuis.  
Indè ubi robustis adolevit viribus ætas ;  
Consilium quoque majus, & auctior est animi vis.  
Post, ubi jam validis quassatu 'st viribus ævi  
Corpus, & obtusis ceciderunt viribus artus,  
Claudicat ingenium ; delirat linguæque mensque ;  
Omnia deficiunt ; atque uno tempore desunt.  
Ergo dissolvi, &c.*

Lib. 3. ver. 446.

How absurd is it here to pretend that the same *feebleness* is in the intensity of childrens desires, as in the *limbs* of their bodies, contrary to all experience !

than moving the body ; yet since that can no way appear, but by some motion of the body ; and since all bodily motion is performed mechanically, even by *Lucretius's robust soul* : if the mechanism of the body is quite disordered, the power of the soul must be quite hid to us, who can see but with bodily eyes ; while the active Being itself remains untouched in its nature. Therefore he concludes wrong from the former premises, when he says,

*Ergo dissolvi quoque convenit omnem animam  
Naturam ; ceu fumus in altas aëris auras.*

VII. As to what is said in this objection of the *generation and vegetation* of souls ; it is contradictory that any substance, whether material, or immaterial, can be generated (Sect. 2. N<sup>o</sup> 32.) ; and contradictory that immaterial substance should vegetate : vegetation is performed by the addition of dead parts. The human soul is indeed at first without knowledge, and without experience ; but hath the power of attaining both. Why should it be endued with the power, and prevented in the exercise of it, by receiving its knowledge instantaneously ? Have the power to acquire a thing ; and receive it without the help of that power ? This is the very particular that distinguishes it from the irrational soul of brutes. They are incapable of improvement ; finished in their specific perfections all at once. Not having this power, they have no novitiate to go through ; nor is improvement expected from them. It is true, it was necessary that the *first individuals* of mankind should be furnished extraordinarily with knowledge, or experience at least. *The first institution of things is always necessarily different from the law of their future procedure.* This is so with respect to the very body : with respect to every thing, if ever there was a *creation*, rather than an *eternal series* of dependent and effected causes. But it would have been *even* unreasonable that it should be thus, after the institution was settled. Our improvement must be by our own industry, a part of our *probation* as rational, having received the power, and being forced upon the first exercise of it by the necessities of the body. Of all which hereafter. It was wisely ordered, agreeably to this, that the body should be long weak, (longer weak than that of any other animal) till experience was attained, and the foundations of knowledge laid. It had been easy to have entered us upon the world, with the same perfection of knowledge and reason, that we have when



we go out of it; or much greater: but I beg it may be considered, that habits are to be acquired by the terms; and therefore habits of virtue. Such a notion as *infused virtue* is inconsistent. *Improvement must be our own act*; our first trial therefore was to be in our first beginnings; and, naturally speaking, I may say our only trial; if we consider how easily the mind, once inflamed with the love of reason and virtue, is carried on. How absurdly is it in every body's mouth, *That nature is a step-mother to man only of all living creatures*; when the Author of nature proceeds in the most rational course with rational Beings! Every thing is best as he hath ordered it; if we would judge according to the nature of things, and not by the measure of our own prejudices.

VIII. The insinuation of the soul's wearing away and decaying with the body, is a *wilful mistake*; there are such instances of the contrary, as cannot leave a man ignorant, that the decay is all on one side (i). People of sober and temperate lives preserve a *clearness* of judgment, and *vigour* of mind, to the last: though this cannot be said indeed of *luxury and constant debauches*, which first attack the springs of mechanical motion, and disguise the activity of the soul, long before it leaves the

(i) See Cicero of old age. The instance of *Ap. Claudius* is remarkable. He was blind with age, and not able to walk——But I refer to his speech in *Plutarch's* life of *Pyrrhus* [Πύρρῳ μὲν (ἴφθ) τὸ πρὶ τὰ ὄμματα τύχῃ ἀναρῶς ἴφθον, ὃ Ρωμαῖοι κ. τ. λ.] And of *Pyrrhus* himself, when he was shipwrecked on the coast of the *Messapii*, he says, The storm threw him ashore τῇ μὲν σάρματι πατάσασιν ἀδυνάτως ἔχοντι, τόλμῃ δὲ καὶ ῥάμῃ τῆς ψυχῆς ἀνταίρῳτα πρὸς τὸ ἀπορῆαι. I shall not speak of *Mafinissa*, nor compare with him *Aurangezbe* in latter times; but desire any one to consider the account which the *Abbé de Vertot* gives of the King of *Maroc*, and the different circumstances of his body and mind, the very last day of his life, in which he gained the battle of *Alcacer*. (*Revolutions of Portugal*, p. 19.) Il se voyoit mourir lui-même & sa foiblesse étoit si grande, qu'il ne douta point, qu'il ne fût arrivé à son dernier jour, il n'oublia rien dans cette extrémité pour le rendre le plus beau de sa vie. Il rangea lui-même son armée en bataille, & donna tous les ordres avec autant de netteté d'esprit & d'application, que s'il eût été en parfaite santé. Il étendit même sa prévoyance jusqu' aux événemens qui pouvoient arriver par sa mort, & il ordonna aux Officiers dont il étoit environné, que s'il expiroit pendant la chaleur du combat, on en cachât avec soin la nouvelle, & que pour entretenir la confiance des soldats, on seignît de venir prendre ses ordres, & que les Aides de camp s'approchassent à l'ordinaire de sa litière, comme s'il eût été encore en vie.—— I shall not transcribe more, but the whole passage deserves to be read. Such instances as these sufficiently take off the calumny in the objection.

body (*k*). It is remarkable, that the great Philosophers of antiquity were men of long lives, who wrote and taught till extreme age. For this purpose I might quote all *Tully's Book de Senectute*. How well doth *Cato* rectify our prejudices (*l*)! A virtuous old age, such as the *Censor himself* describes it, is the loveliest spectacle in human things. The virtuous old man has attained what all men desire (*m*); and in the way that all men should desire it: he is past the shelves and dangers of life (*n*), which the young must encounter (*fatally perhaps*); he rides securely in the port (*o*); and shall, instead of being extinguished for ever, be safely landed in a new country; unless we can suppose that rational Beings are to be abandoned at last, by a Being himself infinitely rational: which if we could affirm, there is nothing that we might not deny. In short, a philosophical youth makes a comfortable old age (*p*). And then we are on the confines of the kingdom of *reason*; ready, and (by going through this last and best part of our life) in some measure prepared, to enter into the society of its inhabitants (*q*). And if this be a rational expectation, there is an end of the Sceptick's objection; for a rational delusion is a contradiction (*r*).

IX. The next argument brought to prove that the soul is nothing but the result of the mechanical disposition of the body, is, that in some distempers of the body it is delirious and mad, and speaks wild things; and that the power of

(*k*) *Libidinis enim & intemperans adolescentia effectum corpus tradit senectuti.* Cic. de senectute. Some, it is true, receive a bad constitution from their parents: but hereditary distempers are generally owing to misconduct in their first rise.

(*l*) *A quâ [naturâ] non verisimile est, cum ceteræ partes ætatis bene descriptæ sunt, extremum ætatem, tanquam ab inerti potâ, esse neglectum.* Ibid. If we put down God for Nature here, no reason can be stronger, nor any thing more true.

(*m*) *At est eò meliore conditione [senex] quàm adolescens, cum id quod sperat ille, hic jam consecutus est. Ille vult diu vivere, hic diu vixit.*

(*n*) *O præclarum munus ætatis, si quidem id aufert à nobis, quod est in adolescentia vitiosissimum.*

(*o*) *Quæ mihi quidem tam jucunda est, ut quò propius ad mortem accedam, quasi terram videre vilear, aliquandòque in portum ex longâ navigatione esse venturus.*

(*p*) *Aptissima omnino sunt, Scipio, & Læli, arma senectutis, artes exercitationesque virtutum: quæ in omni ætate cultæ, cum multùm diùque vixeris, mirificos asserunt fructus.*

(*q*) *O præclarum diem cum ad illud divinorum animorum concilium, cætumque proficiscar!*

(*r*) Must it not appear absurd to any thinking person, to say, *Man may contrive something more reasonable than God hath?* This in general is contradictory. And in the present case the contradiction is flagrant, if we should say, an infinitely rational Being may frustrate his creatures of a rational expectation.

medicine cures it again, as it doth the body (s). The modern Sceptick always quotes this with great security and triumph; but let him seriously reflect how little it concludes. For since by N<sup>o</sup> 2 and 3, (not to go farther back to other arguments) it is the greatest contradiction that spontaneous motion, in the meanest insect; that the very irrational soul in brutes; that words spoke ever so much at random; that any perception or idea, how wild soever, should be the effect of pure mechanism: how much a greater impossibility is it, that such a noble appearance as *reason disturbed* (for, in respect of the brute-nature, even that is an appearance of great dignity) that such a superior appearance, I say, should be the result of a mechanical disposition of matter! If reason disturbed is the result of mechanism disturbed, *reason is the result of mechanism*. Doth not this leave the assertion still loaded with all that heap of intolerable absurdities mentioned in N<sup>o</sup> 2? Reason disturbed is a complex appearance, implying *reason*, and the *disorder* of that reason; or reason affected after a certain and particular manner; now, since it is certain that the power itself must belong to an immaterial Being, it is very conceivable that the disorder, or the particular affection, or the disturbance in the exercise of that power, may proceed from an external cause, either material, or immaterial. This I think is a categorical answer to this boasted difficulty. Let us here resume a little the example of the clock, N<sup>o</sup> 20. of the last section; and it is not only reasonable to argue with the Sceptick from that example, by which he seems to insult over his adversaries; but remarkable that he may be confuted from it: suppose it should strike twelve, while the hand points at six, and that all the motions in it, how many soever they be, should contradict each other, instead of agreeing; every body would allow that these contradictory motions as much stand in need of a power to produce them, as if they agreed. There is indeed no difference in either case, as to the motions themselves: and as to their jarring, we would refer that to some accidental impediment, or any thing rather than the want of an *immaterial Power*, such

(s) *Quin etiam morbis in corporis avius errat,  
Sæpe animus; dementit enim, delirâque satur, &c.*

Lib. 3. ver. 464. and again ver. 509.

*Et quoniam mentem sanari, corpus ut ægrum,  
Cernimus; & flecti medicinâ posse videmus:  
Id quoque præfagit mortalem vivere mentem, &c.*



as gravity or elasticity. And though we saw the motions brought to harmony again, and the disease (so to call it) cured, by rectifying the disorder of the parts; that could never make us believe that no mover was necessary, besides the mechanical configuration of these parts; but confirm us in the contrary, by shewing us where the disorder lay, and how it was cured (1). By this we may see, in a parallel case, how the disorder of the mechanism of matter may disorder the action, or influence, of an immaterial power upon it (for such the action of gravity or elasticity hath been shewn to be); and therefore plainly enough reconciles any such disorder, with the immateriality of the soul.

X. When this will not turn to account, the modern Sceptick makes another use of the present difficulty, and contends that at least the perfection of rational thinking depends on the mechanism, or right disposition of the matter of the body; "else why should an accident, or indisposition of the body disorder our reason?" This objection is so plausible, that the generality of men allow it to be matter of fact, and therefore unanswerable; and yet it is plainly *equivocal*, and hath, like most others, a double meaning; one that is consistent enough with the immateriality and rational nature of the soul, and another, artfully shuffled in under colour of that, inconsistent with both these. I have just before observed, *That a thing may be an impediment when wrong, which cannot be an efficient cause, though right*: and therefore the real *efficient cause*, though it hath in itself all the *power* and *art*, must depend on this *other thing* for not hindering or obstructing its operations: and there are abundance of instances which shew familiarly that the regular exercise of a faculty, or power, may be disturbed by the wrong disposition of an organ or instrument; and yet the skill of the *Artist* be quite independent of the right disposition of it. Thus a *Musician* can make but bad harmony, if the instrument he plays upon be out of order; nor can the most common *Mechanick* exert the perfection of his skill, if the tools he works withal are unfit for his purpose. Now to apply this; the soul is forced

(1) This, and a thousand other instances, shew, that a thing may be an impediment, if wrong; which cannot be an efficient cause, though ever so right: and yet it is plain, in all the Atheist's arguments for the materiality of the soul, it is taken for granted, that nothing could hinder an effect, but what could produce it. Which any one may apply at his leisure to them all.

in this state of union, to have recourse to a material sensory, where the impressions of things are first made, and still preserved, as to its *repository* or *diary*, if I may so say. From all that has been said in the three last sections, and the beginning of this, it appears that the soul is as different from this material sensory, as a Musician is from the harpsicord or instrument he touches. The soul can apply to this repository, examine the nature of what it finds there, chuse this, reject that, compare things, join them together, reason from them, and (so to express it) make up musick and harmony out of them : for all this doth not recede far from the comparison mentioned. In this the perfection of rational thinking consists, since here the power and activity of the soul is exerted, and all the art and skill manifested. But if these impressions are *darkened*, as in sleep ; or if they are *disordered* and *jumbled*, as in many casualties (which the objection hints at) they may ; or if other impressions are made, contrary to the order of *external nature*, as in *dreams* : that the soul should be percipient of impressions, which for the time are not, or not percipient of those which are, is impossible ; which therefore can be no imputation on its rational nature ; for thus far it is barely passive. If new impressions are made, or the former impressions darkened, or not patent ; it is only the perceptivity of the soul (in which we are *necessary* and *passive* at all times) which is misinformed *from without*, and not its rational power or activity, which is perverted *within*. Let it be considered, that even the sensory, or that part of the brain to which the soul is united, is *external* to the soul, *i. e.* doth not belong to it as a part of itself : and therefore it may have misrepresentations made to it, by means of this, and yet not be *touched* or *affected* in its own nature. I do not see, according to this objection, why it should not be made an imputation on the rational nature of the soul, that it is at all joined to a material organ. And then the objection is levelled at *something higher* than the soul itself. What imperfection can it be in a percipient Being, that it is percipient of what is presented to it ? What is it that makes us percipient of the beautiful prospect of nature in a starry night, or of the pleasant landscape round us by day ? It is that certain impressions are made by the optick nerves on *this sensory* we have been speaking of, and which the *percipient* is under a necessity of perceiving. And if in a dream, or otherwise, different impressions should be made on the sensory, whereby the face of nature should be represented wild and hideous ; or if sounds should be excited full of horror and discord ; the percipient must be equally passive in perceiving these. Thus

we see there is the same necessity in the nature of the thing, for perceiving these impressions which are made reproaches on the soul, as for perceiving the greatest beauties of the creation.

XI. Farther, can it be any imputation on the soul, that the *register* in the corporeal sensory is darkened, or covered up in sleep? or suppose this should happen in other cases? This plainly proceeds from the imperfection of the body. But is it the fault of the soul that it is obliged to make use of this corporeal register? If there were any fault here, that would be levelled at a *higher cause*, as has been said: but there is really no mistake or blunder in the case; but a necessity arising from the confinement of spirit to a dark corporeal prison: when the confinement is taken off, things must be otherwise. Now external circumstances being thus disposed, the register or seat of memory is darkened, impressions are made on the sensory, the soul necessarily perceives these, the perceptions are as real as if the objects really existed, the soul takes them for real, it acts and behaves as if they were real. This is neither to be delirious nor mad. It would be requiring too much of an *embodied spirit* to blame it for being subject to illusions. Let us for once suppose, that all these alterations were made in the sensory while we are awake; and then let any one say what would be the consequence. The soul would behave in the very same way as it does while we are asleep. There is no man, no not the greatest Philosopher, who would not be thus imposed on. He hath not considered the thing aright, who thinks he should be able to stand his ground. Lastly, let us suppose that sleep goes off. The animal spirits act on the brain as usual, the register is opened, the late impressions effaced, and all is as it was before. Thus the rectifying the organ frees the soul from the illusion to which it was exposed through the means of that organ. The expression therefore [*mentem sanari, corpus ut agrum, cernimus*] is fallacious and equivocal. All this seems an intelligible and easy account of this matter, because in truth it is fact: and how it may be applied in other cases shall be shewn in another place, where this subject shall be considered more at large. In the mean time let me observe that, from what has been said it appears unfair, to turn what passes in sleep to a *reproach* on the rational nature. Attentively considered it vindicates the soul from aspersion, and may be of farther use. The Sceptick, after he hath made a bad use of it, would have it remain in that light, and be no more regarded: but that would be wrong. The argument



gument it affords for the super-existence of souls, is certainly obvious, and was so in all ages. I am apt to think that this *single appearance* (misunderstood and misapplied indeed) gave the first rise to *superstition* and *Polytheism*. *Homer* is led by it to point full at the super-existence of the soul. He speaks of it with wonder, and introduces the *prospect* which it opens, with an ὦ πόποι, in those remarkable lines which he puts in the mouth of *Achilles* after the death of *Patroclus*:

ὦ πόποι ἦ ῥά τις ἐστὶ καὶ ἐν Αἴδαο δόμοισι  
Ψυχὴ καὶ εἶδωλον, ἀτὰρ φρένες ἐκ ἐνὶ πάμπαν·  
Παννυχίη γὰρ μοι Πάτροκλῆος δειλοῦ  
Ψυχὴ ἐφεισέκη, γούωσάτε, μυρομένητε,  
καὶ μοι ἕκασ' ἐπέτελλεν· εἴητο δὲ θεσκελον αὐτῷ.

*Iliad.* ψ. ver. 103.

There is no reading this without finding the springs of nature touched in us: and the severest Philosopher must allow the observation as just in reason, as it is natural. But, which is more to my purpose, the *cold* and *sceptical Lucretius* was more afraid of *this appearance*, that it would overturn his whole scheme, than of all the phænomena of nature beside. He foresaw the difficulty from the beginning, and was on his guard to provide for it. In proposing the several *heads* of his work, in his entering on it, his manner of mentioning this is very remarkable.——“Chiefly, (says he) “we must investigate with sagacity the nature of the soul; “and what it is which occasions those frightful visions to us, either *while* “*broad awake*, when sick, or while buried in sleep; so that we think we “*hear* and *see* those before us, whose bodies are laid in the earth (u).”

(u) —Tum cum primis ratione sagaci  
Unde anima, atque animi constat natura videndum;  
Et quæres nobis vigilantibus obvia menteis  
Terrificet, morbo affectis, somnôque sepultis:  
Cernere uti videamur eos, audirêque coràm,  
Morte obitâ quorum tellus complectitur ossa.

*Lib. i. ver. 131.*

And elsewhere he gives this reason for solving the appearance of dreaming by what he calls *simulacra*.

——Ne forte animas Acherunte reamur  
Effugere; aut umbras inter vivos volitare:  
Neve aliquid nostri post mortem posse relinqui.

*Lib. 4. ver. 41.*

Accord-

Accordingly, he hath contrived a *long mechanical* solution for this phenomenon in his fourth book, in which how he hath succeeded we shall see afterwards. So Mr. *Hobbes* seems to have been no less apprehensive of this appearance of dreams to the overthrow of his position, *That the soul and all spirits else were material*; which, as hath been observed above, he is express in asserting: and he owns pretty explicitly, that a great part of the *Pagan Religion* was owing to it. In his chapter of imagination (the second of his *Leviathan*) he says, "From this ignorance of how  
 "to distinguish dreams, and other strong fancies, from *vision* and *sense*,  
 "did arise *the greatest part of the religion of the Gentiles in time past*, who  
 "worshipped satyrs, fawns, nymphs, and the like; and now-a-days the  
 "opinion that rude people have of fairies, ghosts and goblins; and of  
 "the power of witches, &c." How this Author solves the difficulty, we shall also see below: but tho' the chimerical imaginations of weak people are here industriously jumbled in with this phenomenon, which is *real* and *constant*, yet that it *naturally tends* to strike religion into the minds of men, is such a quality, as should provoke our curiosity to see what may be in it. Though superstition be a human weakness, yet all religion is not to be accounted bad, as *Lucretius* contends. This constant and universal appearance was not designed to stumble men, I dare say. Nor was it designed for *no end*, nor for a *bad end*; nor is it the *effect of chance*. If in sleep all had been an *universal blank* of consciousness and action, it would have been very difficult to have persuaded most men, by reason alone, that the soul retained *these powers* in that state: but as things at present are, we see that the soul doth not owe its perception to the body, that it is percipient when that can communicate no action to it, and that sleep is not an affection of the whole man. (See the note (z) N<sup>o</sup> 26. of the last section.) These particulars farther plead an excuse for endeavouring to find out some light, some consistent meaning in this perplexed subject. (See N<sup>o</sup> 23. of the last.)

XII. From all that is said it appears, that it is no reproach upon the rational soul to say, That the perfection of rational thinking depends on the matter of the body, as an *impeding* or *obstructing cause*: But that the perfection of rational thinking should depend upon the matter of the body, as a *promoting* or *effecting cause* (which is indeed the true meaning intended in the objection) is a direct contradiction. There is certainly a *dependence*; but it is such as I have described it to be above. Men when they

they turn their thoughts to the limitation and impediment which dead matter naturally gives the soul, both in perception and the exercise of its rational faculty; and when they observe that, the disorder of the organ being again rectified, the faculties of the soul are no farther obstructed, but rather exerted; Men, I say, when they observe this difference, and the soul's keeping pace, as it were, with the body, should not ascribe this dependence to the efficiency of the material organs, but to the restraint which the soul is subjected to through their means. It is easy to mistake the one of these dependences for the other, as I might shew by variety of examples; and yet they lead quite different ways, and to opposite conclusions. The reasoning in the last section, if remembered here, and the principle laid down in the beginning of this, shew undeniably, that the perfection of rational thinking cannot be effected, or promoted by the dead matter of the sensory. Therefore, not to say any more on that head, I shall only farther add, that we talk so much of the *sensory*, and (though it is but barely instrumental in conveying outward motion to the percipient Being (v) suppose it so absolutely necessary to perceiving; that at length we seem to fancy that the perceptive capacity lies in it alone; or at least, that it is the first and chief thing that perceives. So much doth the sound of the word [*sensory*] make us forget the nature of the thing! Nor do we stop here; but having once allowed it to be the *percipient*, we at length suppose it to be the *agent* also; though it is very certain from sect. 1. and 2. that this same *sensory* is, after all, nothing but dead and *senseless* matter. Why should a sensory be at all necessary to the soul in a state of union? This is certainly worth considering. Only for this reason, because in a state of confinement to a dark and close cell, the action of external objects was to be conveyed to the soul, by some material part or other, if it were at all to be percipient of them. And it is thus kept at a distance from the objects themselves, and receives information about them by the mediation of *another thing*, and with disadvantage (x). Hence the soul is

at

(v) See the Note (n) N<sup>o</sup> 15. of the last Section.

(x) I must observe here, with respect to what is said concerning sensories, that it is an exceptionable way of speaking to say, *Universal space is the sensory of the Deity*. I believe it is designed to shew us the necessary immensity of God; or that space which is *necessary* and *something*, (not a pure negation) some way or other belongs to him. But the analogical meaning of the word *sensory* is not to be applied to a Being, whose life and perception can nei-



at a great deal of pains, by the help of its other faculty of ratiocination to find out the true natures of objects, from this disadvantageous and distant manner of perception. From this it appears we make a very false inference, when we conclude, because such a thing as this sensory is necessary to the soul in a state of union, it must be equally necessary to it in a state of separation. This is to forget the difference of these two states; or to think a *medium* of communication will still be necessary, when we suppose the necessity removed. This is as if I should say, the contrivance of a *camera obscura* would still be necessary, though I might look directly on the objects themselves in broad and open day-light. For, as hath been remarked above (Note (n) N<sup>o</sup> 15 of the last section) we may consider the *eye* as the *lens*, and the sensory as the sheet of white paper which receives the *images*. But farther, it is necessary not only that images be formed on this sensory, but that the impressions of them remain there for some time after, when even the *artifice* of a *camera obscura* cannot take effect; as in *darkness*, *silence*, and the *absence* of the object. But these very considerations shew that none of this artifice will be necessary in a state of separation, when the soul is unconfined, and can therefore perceive at first hand what is done without, by applying *immediately* to the objects, or being itself directly accessible. Memory therefore by impressions must be unnecessary in such a state (as has been asserted in the last paragraph); as much as a *copy* would be unnecessary, when we might consult the *original* itself. And when we are forced to own that it is the soul itself which perceives thus at second hand, and under all these disadvantages; we must also own that it will perceive at first hand with more ease; for this is still but *perceiving*. Let me add one consideration more with respect to this sensory, and impressions upon it, to shew the disadvantages the soul is under in perceiving by the help of such a material organ. It was necessary that this organ should be *soft* and *yielding*, that it might be capable of receiving impressions from the least force; the force to wit of the rays of light acting on the optick nerves, or other such feeble action. And this very quality makes these impressions liable to be effaced or weakened by any the least *contrary force*. So that it is wonderful they should be preserved for any con-

ther be *limited*, nor *enlarged*. This word is misunderstood (as I but just before observed) as if it were the organ without which the soul would be impercipient. But let it be taken in any sense whatever, the Deity cannot stand in need of an organ of perception.

derable

derable time, as we find they are: and I can ascribe this wonder to nothing but the Almighty hand of God, and his unsearchable Wisdom. Let us then for once suppose that these impressions were as *lasting* and *durable*, as if they were engraven on marble or adamant: this would add no *new power* or perfection to the soul; and yet it would seem to act with more power and perfection in that case: Which may shew us how falsely we reason concerning the nature of the soul; as also how disadvantageous it is to have these impressions made in such soft and yielding materials (y).

XIII. Moreover, since the constant action of the animal spirits upon this *soft* and *yielding* organ, is required, to keep the impressions in it patent and open, as they are while we continue awake; and since in sleep these animal spirits are called from that function to other purposes; we may hence see the reason, why forgetfulness should accompany sleep, and the seat of memory be the first thing that is affected at that time. There is a plain necessity in the nature of the thing why it should be so. This is not the defect of the soul, but the imperfection of matter. And yet even here we may admire the *Goodness* and *Wisdom* of God. There is no mistake nor blunder in the case, as has been said. The œconomy stands in need to be rectified, the body wants respite from continued exercise and fatigue, and especially the animal spirits themselves are to be recruited. Sleep

(y) From this *yieldingness* and *softness*, which a material sensory must have, because of the use it serves for, we now see the reason why it should be so easily *disturbed*, and the impressions on it *disordered*. Without *softness* it could not have been a sensory; and without being *liable* to be disordered, it could not have been soft. Hence a stroke, a fever, drunkenness, sleep; nay excessive anger, joy, or any other violent passion, must disorder it. Yet we charge all the changes and alterations which such a yielding substance must undergo on the soul itself. We now discover that the soul and its powers remain still untouched, though it must feel these disorders. This consideration clears up the difficulty of most appearances, and takes away their ambiguity or liableness to be mistaken; and particularly in the next objection.

Others have observed how wonderful it is that such a small part as the sensory should be capable of such an incredible number of different and distinct impressions. And certainly, if we consider an *adult person*, arrived to experience and knowledge, in whom this *small part* contains more different characters than the largest volume, it must be reckoned a prodigious instance of wisdom and power, to contrive such a piece of art, and to work it up in so small a room. But when we consider the materials in which this is performed, liable to be jumbled by every motion; and that the characters are preserved, notwithstanding such constant alteration; the wisdom and power of this transcends all admiration.

therefore was to be a *state of rest and inaction*, no change was to be effected, nor was the soul any way to be concerned here. It is the God of nature that watches for us, and performs all in the animal œconomy, (sect. 2. N° 12. to N° 18.) and recruits those very bodies of ours while we sleep. Thus there was no occasion for memory when the soul had nothing to do; hence these impressions are shut up, when their remaining open could be no longer of use. There would have been an inconvenience if they had been patent and legible during the time of sleep: the soul, awake by necessity, and active in its nature, must still have perceived them, and fatigued the body with constant action beyond its ability to hold out, *i. e.* sleep, and recruiting the body would have been thus still impossible. But by a contrary method the activity of the soul is qualified and kept under, for the sake of the body, that their opposite natures might be brought to *correspond*, and bear some proportion to each other. We may perhaps fancy, that the soul might have been employed in constant contemplation while we sleep; but then it must have indefinitely directed the animal spirits to those impressions, as while we are awake, and thus exhausted the only matter in the body subjected to its command, and designed to be the sole instrument and minister of the *will* in spontaneous motion. The body would thus have languished, sleep would still have been impossible, and spontaneous motion must have become an intolerable fatigue. In endeavouring to perform more than was consistent with the nature of body, the design and purpose even of a waking state would have been frustrated. The active nature of the soul therefore was by all means to be restrained at some times, that the body might be in a condition to obey it at other times. Or again, we may perhaps fancy that at least the soul might have acted by itself while we sleep, without using any part of the body, or molesting it in any manner. But if it had been thus indulged, if it had not been made dependent on the body to be limited by it all manner of ways, if it might have become a *separate person* at pleasure (so to say); it would have neglected the body altogether, and avoided being concerned in those things which are to be done in a state of union. How tedious and hateful must the body have been to it then! But now it loves it; cherishes it as something belonging to itself; drudges for it! To think and act this minute as separate spirits do, and the next minute to think and act as our embodied spirits *must do*, who are tied down to follow and obey the laws of matter, had been inconsistent: the transition must have ap-

peared



peared shocking and unnatural. The Union demands that soul and body should make but one person; but in this case there would have been evidently two. How unwillingly would the soul have subjected itself again to the laws of the body, after having tasted a pleasure which would make them bitter! We demand conditions, without knowing what we demand. The soul now seeks to prolong the union: this is consistent with farther views; and we see the *first cause* labours, both while we sleep and while we are awake, to make the union subsist!

Here I beg leave to add one remark more. In the state we have been speaking of, when all is at rest and silent, and the impressions on a *sen-  
sory* designedly sealed up from the view of the mind; how easy is it to make *new* and *foreign* impressions there? Suppose then *some cause* comes, and makes impressions in a *different character*, (or rather this is matter of fact, and not a bare supposition) the soul, as always *alert* and *vigilant*, must perceive what passes; and that without memory of what hath passed before: for, as hath been said, the impressions of former objects are shut up at that season. And this seems to be the formal ratio of dreaming, or the manner in which it comes to pass. Hence the soul must take all for *real*: it begins to act a part in these new affairs: if the scene is shifted, it cannot help that; it must take things as it finds them; but still it is busy and active, and takes a part in all scenes. And thus it would continue for ages, acting, defending, contriving, &c. as things required; if sleep and these circumstances were still prolonged. If this be kept in mind, it will not be so difficult to advance something intelligible on the nature of dreaming, as hath hitherto been imagined. But to return; from all this we may see what reason there was in the nature of things, why the activity of the soul should be restrained in sleep; and why it should be barred from the perception of external things. And hence again we cannot but be convinced how necessarily it must be freed from all such *hindrances* and *inequalities* in a state of separation. And if all this be intelligible, (as it seems to me) and highly reasonable from the nature of a material sensory, and from the necessity of repairing the animal œconomy, and therefore of suspending the power of the soul over the body; he must talk very unreasonably who would turn the necessities of the body to an imputation on the soul. Let us act fairly between the two parts of our composition. The bodies are *ours*, but the souls are *us*, if I may so express it: and he seems to revolt against himself, who raises

the body above its rank. In a word, the soul cannot depend on the body as an *efficient* or *performing cause* of rational thinking : and that it should depend upon it as a *limiting* or *impeding cause* can be no objection.

XIV. The next argument or objection is the appearance of drunkenness. *Lucretius* says, *the eyes then roll, the tongue falters, the legs stagger; the soul itself is inebriated; noise, tumult, and quarrels begin* (2): therefore a soul that is so disordered can be nothing but matter, or the result of a disposition of matter. This doth not altogether differ from the difficulty last considered; and therefore a good part of that reasoning will be applicable here, which I need not repeat. If some diseases affect the sensory, (as every material part may be affected with some disorder) drunkenness is a disease, and must, if any other, strongly affect it. For spirituous and fiery liquors, mixing in great quantity with the blood, and being diffused into all parts of the body, and especially the brain, (the *regia animæ*, as *Borelli* calls it above) must occasion a *notable change* in the mechanical motions of the œconomy; something very new and unusual to the *Sentient* there residing. Sleep, which is at last brought on by all this *burry* and *disorder*, the head-achs, fevers, &c. which succeed, shew this to be so. And it is not only easily conceivable, that the percipient Being should be affected with this commotion in the matter to which it is united; but (as I argued above in N<sup>o</sup> 10.) it is inconceivable that it should not. How is it at all affected, or made percipient of external things, but by motion excited in the sensory? And if other unnatural motions are excited in the same sensory; how can it be impercipient of them, by the law and condition of its union? Indeed I may say, to satisfy the Sceptic, that the soul is immaterial, the body should be liable to no disorder, contrary to the nature of mechanism; or the soul should feel no disorder, contrary to the condition of their union: for then it would not be sensible even of the right order and disposition of the body.

(2) *Denique cur, hominem cum vini vis penetravit  
Acri; & in venas discessit diditus ardor:  
Consequitur gravitas membrorum? præpediuntur  
Crura vacillanti? tardeſcit lingua? madet mens?  
Nant oculi? clamor, ſingultus, jurgia gliſcunt?  
Et jam cætera de genere hoc quæcunque ſequentur,  
Cur ea ſunt; niſi quòd vebemens violentia vini  
Conturbare animam conſuevit corpore in ipſo?*

Ver. 475.

XV. I might speak to every particular in the present objection: but that would be too tedious. It hath been observed, that perception (of external objects) is regularly excited by certain modified motions through the organs (*a*): and if these modified motions are disturbed, or modified after an unwonted and strange manner (as it is impossible they should not in the present case) how can perception be regular? And this is applicable to more difficulties than the present. Some people stick by their bottle so long, till they do not know the persons they sit down with. Now if the like should happen in the fit of a fever, or other disease; where is the wonder! It would be a wonder indeed, if such a soft and yielding substance as the sensory, suffered as little alteration, as if it had the strength and firmness of brass. (See N<sup>o</sup> 12. above.) Again, *Borelli* hath observed, *that the soul acquires the habit of moving the parts of the body, and of sending the animal spirits into this rather than the other part, by frequent trials and experiment*; and this is certainly true with respect to man: we see such habits acquired in many cases, after we are adult; though less true with respect to brutes, as shall elsewhere be remark'd. How is it possible then, it should preserve this art at that time; or not be disturbed in the practice of it, by such a hurry, and commotion, of these animal spirits, or whatever other subtile matter it employs to this end, when all the fluids in the body are in such a hubbub and disorder? There is rather a necessity that the legs should stagger: all these disorders, instead of being objections, are direct consequences of a soft and yielding sensory, of fluids and animal spirits, easily put in motion, or disturbed in their motion. And here I leave it to be considered, if the soul were a certain subtile matter, as is pretended by some; whether such a rapid intestine motion and jumble would not dissipate it into a thousand atoms, and the least disorder of this kind become certain death (*b*). Farther, let it be observed, and indeed every body must have observed it, that a piece of

(*a*) Note at (*n*) N<sup>o</sup> 15. of the last.

(*b*) Or, if the soul results from a certain disposition of parts; how can it result from a contrary disposition of these parts? Or if it result from any intermediate degree of disposition; the difficulty will be, not that it feels the disorders of the body, since it results even from these; but why it is not constantly changed *fundamentally*, since the cause of it is constantly changed; for every new change is still *productive* of the soul. It should then be but a quality constantly produced; and therefore *never the same*; as the flame this minute is not the same with the flame that was last minute: and how can one quality be the subject of other qualities? In short, the soul cannot be the result of one individual disposition of matter.

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of mechanism so rude and clumsy as a clock is, doth not go after the same precise tenor, in the different extremes of heat and cold : and if a piece of mechanism finer and finer still, were liable to greater and more sensible alterations ; this would never infer that it was moved without a *power*, or had no other mover, but the *mechanical configuration of parts*. Hence therefore, if it is certain from other reasons, that the soul is immaterial ; these different affections it suffers from the body, can avail nothing to conclude, that it was but the result of mechanism. Lastly, let us consider that a man is in a different temper from himself, when without the circumstances of the present phænomenon, and perfectly sober : as when calm or in passion, in affliction or joy, &c. where the soul affects the body instead of being affected by it. Yet no man would make this difference an argument for material souls. Such a circumstance, where the *reverse* of the thing objected happens, shews that men mistake this appearance wilfully. For as Mr. *Wollaston* well argues, a *single word* spoke, or supposing it but spoke, or mistaking one word for another, or *looking* simply on a piece of paper where it is written, fills the soul with rage and fury ; and thence at length disturbs the body. And how can that thing be material, which is so violently affected without material action ? Certainly a word scrawled with ink on paper, hath no force or *moment*, to excite motion in matter, nor one word more force than another.

XVI. The next argument for the materiality, is taken from *fainting*, and other kind of fits, where all signs of life forsake the body, which yet afterward return (c). The modern Sceptic improves on this, from experiments

for then *every change* of that disposition should be *certain death*. Nor therefore can it result from a right disposition of matter ; for that is *individual*. And if it cannot result from a right disposition, or a regularity of disposition, it would be absurd to say, it results from the disorder and irregularity of disposition. This very easy and short consideration will satisfy a man all at once that the soul is not material, without having recourse to other methods of reasoning. So, that, as was said N<sup>o</sup> 1. of this section, the very objections against the immateriality of the soul afford a clear and convincing proof that it is immaterial.

(c) *Quin etiam, fneis dum vitæ vertitur intrâ,  
Sæpe aliquâ tamen à causâ labefacta videtur  
Ire anima ; & toto solvi de corpore membra.*

Ver. 591.

Also,

*Quin etiam, subitâ vi morbi sæpe coactus*

Ans

experiments on living creatures in the *air-pump*, and from some instances of persons, who have recovered, after they have been thought dead for some time. "These experiments and instances, say the patrons of material souls, shew that *life* and *perception* are only the effects of mechanical motions in the body, such as circulation and respiration: because when these motions are stopt, life and perceptivity cease; and whenever they are recovered, life and sense return again. Or if the soul were really a distinct living being, how can we imagine that it would *linger*, and stay in a body as good as dead; and not rather fly away immediately?" This objection directly argues for the *possibility* of a contradiction; That matter may rise to the perfection of thought, reason, and self-motion, by being moved mechanically. But I argue thus with the objectors. *Matter may rise to thought, reason, and self-movency, without being moved at all, or without any cause; and that all matter may become living and thinking, without any reason.* This is my argument; and if they can find any medium to prove it absurd, they will have answered their own objection. For if they say it is perfectly absurd, that any effect should be without *all cause*; I own it, and apply it to *reason, spontaneous motion, and life*, which in their objection are effected absolutely without all cause; since, as has been said above, the cause assigned is as void of power to effect these, as the absolute negation of all cause is. A particle of matter, by being impelled to motion because of its resistance, is no cause, nor any thing like a cause, why it should become living and reasonable. Double the number, and double the motion; and, as hath also been said, it is but the *negation of the cause doubled*: and so on. If they allow my argument good; I proceed, and say, *There is no difference between possibility and impossibility.* If they can shew me a difference, I apply it still to their own objection. If they grant there is no difference; then I conclude, They want a ground in the nature of things, to object against any thing I say, or advance: for all objections suppose a difference between possible and impossible (*d*). So certain is it that the sceptical principle takes away the

*Ante oculos aliquis nostros, ut fulminis ictu,  
Concidit; & spumas agit; ingemit; & tremit artus;*

Ver. 486.

(*d*) I would here observe in general, That if an objection is not clogged with a contradiction, one may listen to it; but if the objection itself is contradictory, a man cannot propose it as an objection, but by thinking that contradictions may be true; in which case he is incapable

the difference between truth and falsehood, and introduces an universal defect of reason in philosophy ! This might suffice : but I add, If they would reflect, that it is the law of the union of an immaterial soul to a body, that the soul cannot actuate the body, nor be apprized of external action by it, unless the mechanism of it be in a right order and disposition ; otherwise there would be no need at all of an organized body, but *any parcel of matter* might be the body of an animal ; if they would reflect on this, I say, or only take it but for a possible supposition, they would see that *such examples and experiments* must take place as much on that supposition, as when they suppose that there is nothing but matter in the animal. This renders these instances *equivocal*, and liable to be mistaken ; and they have pitched on the impossible conclusion.

XVII. Let us once more resume the example of a watch, or clock, that we may see what is here asserted to be true, really effected in a parallel case. The immaterial impulse of gravity or elasticity is the *power* : The constant action of this *power* is necessary to make the machine go. It is therefore properly the *mover* ; or, if we might so say analogically, the *living principle and soul* of the engine. Yet the due configuration and disposition of the parts is also necessary : and, supposing that to be perfect in all the several pieces ; it is still farther necessary, that there be no accidental impediments ; not only nothing wanting that should be there ; but nothing present that should not be there. And how many thousand ways may something of this kind happen ? Or, how contemptible a thing may prove the impediment, even in such rude mechanism ? a grain of sand, the smallest hair. It is farther no less necessary that the machine be kept dry, and the whole refreshed, (to speak still in the terms of an animal body) by winding up, once perhaps every four and twenty hours. These several things are all necessary, that there may be no impediment, though not necessary as *efficient causes* : and if the least requisite is want-

capable of an answer ; for to him then *truth* itself may be *impossibility*. If he is to be determined by reason therefore, he should think first with respect to his own objection, it cannot be true nor real, since it infers a contradiction. The end of all reasoning in the world is to keep free from contradiction ; but it would be absurd to suppose one contradiction real and true in order to keep free from another. Though my Adversary were inattentive enough, not to observe the repugnancy of what I say ; though he should allow his own position to be overthrown ; that cannot make it yield satisfaction to my own mind. This is so far from proving what he says false, that since our assertions are *contraries*, it proves his assertion true.



ing, or the least thing superfluous present, though the power still remains, and acts (or impels the dead parts) as at other times, the machine no more tells the hour, minute, day; or answers any of the ends it was designed for, than a picture of it drawn on paper would. In short, it is as dead, as if there were no power present, or acting. Let me here, by the by, reflect on the adorable power and goodness of God. How much more exquisite is the mechanism of our bodies! how infinitely more complicated! and how much more brittle are the materials! And yet we live! nay enjoy health, strength, &c. unless by our own faults. Now, from this liability in the machine to fall into fainting-fits, and to have all signs of life suspended in it, (continuing still to use the analogical terms) or from the recovering of it again; no body would say, that these mechanical motions, while continued, were constantly productive of, either the mechanical power of the engine, or yet, of a certain other power, which rises to the performing wonders quite above mechanism. I need not go on with the comparison: the application is obvious, and shews that the objection proceeds from much inattention. Let me only observe, that the soul may still be present, though no signs of life appear about the body; for, as was said in N<sup>o</sup> 6. we can see but with bodily eyes; and the activity of the soul is only discoverable by motion in the body; and that motion is performed mechanically. *Ye did not see my soul all along* (says Cyrus on his death-bed to his sons); *but discovered it only from those things, which it performed in the body* (e). If therefore the mechanism be obstructed, mechanical motion is stopt, and the animal must appear dead. Though nothing is wider from a just conclusion, than that the soul is dead; or *results only* from the mechanical motions in the body. If that were so, how could it be other than a new soul, kindled up again, after the mechanical motions were begun anew, which would never make the same conscious being as before. The soul must be continually generated, with every new respiration, and pulse of the heart; and continually *cease to exist*, as the motions ceased that caused it. We might as well say that every motion of the balance or pendulum of the watch should beget

(e) 'Οὐδὲ γὰρ οὐ τοὺς τὴν ψυχὴν ἐκείνην, ἀλλ' οὓς δὲ ἐπράττετο, τοῦτοι αὐτὴν ὡς οὖτος κατεφωρᾶντι, apud Xen. We have this more at large in Cicero, *Nec enim, dum eram vobiscum, animam meam videbatis: sed, cum esse in hoc corpore, ex iis rebus, quas gerebam, intelligebatis.* The conclusion is, *Eundem igitur esse creditote, etiam si, nullum videbitis.* Or rather this sentence is lost in the Greek since Cicero's time, as appears by what follows.

thought : and how these independent thoughts could be applied to one subject, or constitute a thinking Being, is inconceivable (f).

XVIII. As to the soul's *not flying away immediately* : how can it without licence? Who is judge of the time? This proceeds on the supposition of want of government and providence in this momentous juncture (g). As was argued before, if the power of a governing Cause is constantly exerted upon inanimate matter ; and if all the changes in the manner of its existence require his concurrence ; how much more must the rational and living part of his works, for which all the rest were designed, challenge his care and providence? If we were to assign a proportion here, as certainly there cannot be a defect of proportion, how great would the difference be ! Besides, is it not *by his power*, that the disorders of the circulation, respiration, &c. are again rectified ; and by his power that they continue still to be performed, after they are rectified? And why should the soul have liberty to leave the body, He continuing to exert his almighty power in keeping up the œconomy? Or before the final ineptitude is suffered to take place? (See N<sup>o</sup> 21. of the last Section.) Since the *union* requires his particular act and intervention ; the *separation* must also require his particular act and intervention ; otherwise the union would be vain, and the design frustrated.

(f) What is here said sets the reasons for the immateriality of the soul in a new and different light. It is very absurd that the soul should be successively generated by every pulse of the heart, or blown up with every respiration of the lungs. A power may be inherent in, or belong to one certain subject ; but that a power should be hourly produced by mechanical motion, constantly begot, constantly die ; have no subject to reside in ; and be itself the subject of other powers and capacities, as the *soul of man* is, are absurdities not to be paralleled. *This power* must then consist of *parts*, parts infinitely small, according to their momentary production : it would be a fleeting, successive thing ; the parts of it independent, which could never make a *continued consciousness*. Such a soul could have no nature, no conception belonging to it : it is as if we should say, *Duration is a power, motion is a soul* ; or we might say any other thing we please, provided it be but absurd enough : The Sceptick can have no idea or conception belonging to such assertions. And all this is as applicable to his supposition that the soul is produced by the mechanical motions of the body, as to the supposition that *thought* may be produced by the balance of a watch while it beats. An impossibility in the one case, must be no less an impossibility in the other.

(g) *Nisi enim Deus is, cujus hoc templum est omne, quod conspicis, istis te corporis custodiis liberaverit, huc tibi aditus patere nequit.* Cic. somn. Scip.

XIX. *Lucretius* makes it an argument of the soul's being material, that it doth not leave all the parts of the body at once, rejoycing, as a serpent to lay down her exuviae (b). Here it is to be observed, that he makes that which he calls the soul, to be disseminated through the whole body (i): but he forgets to consider that the appearance, which he brings as an objection, agrees better with the contrary hypothesis, than his. For if the *Sentient* in the body is a different substance from matter, it must feel the limbs become gradually incapable of being actuated, as the disorder of the mechanism increases; whereas on his supposition of a *dividuous* soul, which dies in one limb after another (k), the limb would be quite void of pain, as if it were cut off. His scattered soul doth not agree with the anatomy of an animal body, where all the nerves terminate in one place, and convey all the external motions impressed thither (l). There is something full of a childish simplicity in supposing, that a man should feel his soul go out whole and entire, through his throat. This is supposing it still material; that the parts

(b) *Nec sibi enim quisquam moriens sentire videtur  
Ire foras animam incolumem de corpore toto;  
Nec prius ad jugulum, & superas succedere fauces:  
Verum deficere in certâ regione locatam:  
Ut sensus alios, in parte quemque sua, scit  
Dissolvi: quod si immortalis nostra foret mens;  
Non jam se moriens dissolvi conquereretur:  
Sed magis ire foras, vestemque relinquere, ut anguis,  
Gauderet, prælonga senex aut cornus cervus.*

Ver. 606.

(i) *Sic anima atque animus per se nil posse videntur:  
Nimirum quia per venas, & viscera mistim,  
Per nervos, atque ossa tenentur corpore ab omni.*

Ver. 564.

And again,

*Namque ita connexa 'st per venas, viscera, nervos  
Ossaque; uti dentes quoque sensu participantur.*

Ver. 691.

(k) — *Inde pedes, & crura mori: post inde per artus.  
Ire alios tractim gelidi vestigia leti.*

Ver. 627.

(l) It is extremely remarkable, I think, that *Lucretius* says, if the soul were immaterial, as it did not grow up with the body; that would have been the case, which is really the case.

*Sed velut in cavâ, per se sibi vivere solam  
Convernit; ut sensu corpus tamen affluat omne.*

Ver. 684.



of the throat and it should *act* and *re-act* against one another; while he is making it an argument, that this would be the appearance, if it were immaterial. Why should the *throat* be the out-let to the soul? Doth immaterial substance want an open passage and room? *Efflare animam* is but a metaphorical expression. He supposes perhaps, that his Adversaries place the soul in the lungs, as he places the mind in the middle of the breast (*m*). He fancies also that the man hath still sense and perception left in the parts of his body, when that which he allows to be the Percipient hath abandoned them, and is taking its flight. But these are the absurd prejudices of an infant; not the reasoning of a Philosopher.

XX. These are the arguments for the materiality of the soul, in all which it is observable, that the reasons are not drawn from the nature of either substance separately, as they ought to have been; nor is it considered what kind of appearance they must make, if they are united (see No 20. of the last); but the *dubious* and *equivocal phenomena* of the whole compounded are pitched upon, where the reasoning of course must become *perplexed*; and the disorders of the material organs, are imputed to the living and percipient Being which uses them. This is directly contrary to the method that should have been taken. Men begin with the simplest things, and thence proceed to more complicated cases. Mathematicians at first demonstrate truths so easy that they seem trifling: but what a wonderful superstructure of science do they raise on that plain foundation! Just so, the *inactivity* of matter is a plain and obvious quality, the first notion that all men, without exception, entertain of it; though they are unacquainted with the philosophical term, *vis inertiae*; and the *inconsistence of inactivity and active power* is a self-evident truth. Proceeding then fairly and ingenuously with these principles, what a scene of things do we not discover, performed by immaterial power, both in the animal body and without it! Farther, if inactivity belongs to matter; power and perceptivity must certainly belong to another substance. This is no less self-evident. And then to collect what farther is necessary to be known about active perceptive Being (as above) whether in a state of union or separation, cannot be extremely difficult. This, I conceive, is the proper method. It is true *Lucretius* brings store of other argu-

(m) — *Consilium, quod nos animum mentemque vocamus:*

*Idque situm mediâ regione in pectoris haret.*

Ver. 140.

ments for the immateriality of the soul; but they are such as need not be mentioned. He generally touches on something that falls in with a common prejudice, or is apt to raise a scruple at first view; but having done that, he is forced to leave it; for that is all that can be done. The subject will not abide an argument, or bear being examined on all sides (n).

XXI. We may take notice, before we leave this subject, that as there are many symptoms in the compound of soul and body, occasioned by the material half, which shew defects incompetent to a spiritual Being; and from which the objections above are drawn: so there are not wanting others which spring from the active nature of the soul, and as clearly shew *that part* of our composition. I do not mean life and spontaneous action, nor thought and reason, which are constant and obvious appearances, utterly incompetent to material substance; but other phenomena less observed; one or two of which I beg leave here barely to name. One altogether inconsistent with the materiality of *that thing* which thinks in us, is, that we are sometimes so wholly occupied in the contemplation of some absent object, or some purely ideal thing, that we are quite impercipient of objects round us, and which at present act upon our

(n) Of this kind is the objection, that material and immaterial (or, as he wilfully mis-names them, mortal and eternal) substance, could not be united at all. ver. 801.

*Quippe etenim mortale æternò jungere; & unà  
Consentire putare; & fungi mutua posse;  
Desipere est: —*

But on the contrary, it is really impossible that activity and inactivity, life and deadness, can consist in the same subject [matter]. Thence follows a very undeniable necessity of two different subjects of inhesion, viz. material, and immaterial substance: and then it is *madness* indeed, (in him) to deny the possibility of their union, which is thus easily shewn to be fact. Yet how strong a difficulty is this made by modern Scepticks! Again, he says, "Since the body cannot subsist without the soul, but putrifies (ver. 579. & seq.) we need not doubt but that this happens, because the soul, being scattered through all the body, hath evaporated, like smoke, through the pores." Here a poor scruple is endeavoured to be raised from putrefaction; as if the body were not liable to putrify and be corrupted, in many cases, while the animal lives; or were always liable to that, when it is dead. Again he says, "How could such a thin thing as the soul subsist, without the tegument of the body?" (ver. 602.) To keep it warm perhaps!

senses.

senses (o). Certainly a present object should more powerfully solicit a material percipient, by its constant and real action, than things distant in time and place, which do not act at all, or than abstract ideal objects, which cannot act. I need not give examples of such as are in grief, anger, fear, love; every one will remember such instances, either in himself or others, as are altogether unaccountable, if the Percipient within us were material. A man may sit in a full company at table, and neither hear nor see what is done round him. And a disorder of the body cannot so much as be pretended here. It happens entirely from the simplicity of the attention, or perceptive faculty, which cannot apply intensely to more things at once (p); and from its voluntarily employing itself in the earnest consideration of something absent, whereby it becomes immaterial percipient of the action of material objects upon it. And neither this simplicity of the attention itself in any manner accords with a material percipient (N° 8. Sect. 3.) nor the voluntary turning it away from the present solicitation (N° 4. of this.)

XXII. Moreover our bodies must be always in contact with something or other, which supports their weight; and this, whether we walk, sit or lie; that is to say, since action and re-action are equal, our bodies are always pressed with a force equal to their own weight. This pressure is constant, and still the same, when the body is best disposed. But if the Percipient within us were material, this great and constant pressure ought to solicit it constantly, and as much as any pressure or force that were not greater; which indeed is not so: for often it is not

(o) "Sometimes (says Mr. Locke, b. 2. ch. 19. sect. 3.) the mind fixes itself with so much earnestness on the contemplation of some objects, that it turns their ideas on all sides; remarks their relations and circumstances; and views ever part so nicely, and with such intention, that it shuts out all other thoughts, and takes no notice of the ordinary impressions made then on the senses, which at another season would produce very sensible perceptions." It were to be wished that the Author had applied this to the possibility of matter's thinking.

(p) Lucretius is very explicate in asserting this simplicity of the perceptive faculty, when it serves his turn; though it be altogether inconsistent with his principles.

*Et tamen, in rebus quoque apertis, noscere possis,*

*Si non advertas animum, perinde esse quasi omni*

*Tempore semota fuerint, longèque remota.*

*Cur igitur mirum est, animus si cætera perdit,*

*Præterquàm quibus est in rebus deditus ipse?*

Lib. 4. ver. 809.

percipient



percipient of this force at all, and often it is more percipient of a smaller force. Nor can it be said that the continual pressure gradually lessens the sense of the force impressed; for the force constantly acts, and the impression is constantly made, and the mind at any time becomes percipient of it, by directing the attention thither. The true cause therefore is that just now assigned. All the parts of our body are constantly touched, or acted upon, by something or other; and yet we are rarely percipient of this, but by a particular act of the will, directing the perceptivity to this, or to the other part. Indeed, taking in the consideration that the perceptivity is simple, or but one; if the percipient were material (a solid, resisting percipient) the strongest material sollicitation ought always to solicit it most; and therefore to engross it. That is, our perception would be precisely mechanical; and constantly determined by the greatest material sollicitation. What kind of thinking could be made up out of this! How much better then is it ordered than the Sceptic would have it! It appeared before (N<sup>o</sup> 29. Sect. 2.) that the perceptions of a solid resisting percipient ought to be mechanical and necessary; but the present consideration, I think, shews us the formal manner of that necessity (q).

XXIII. As all material action ought to solicit a material percipient; so I might here farther insist upon what was only hinted at, from Mr. Wollaston, at the end of N<sup>o</sup> 15. *that nothing but material action could solicit it*; which is an equally necessary consequence of the materiality. And in pursuing this, it might be shewn, that the strongest passions and emotions in the soul, are excited by no material action, or not by the strongest material action, contrary to plain and obvious reason, on that supposition. No one object, equally near, and equally illuminated; nor sound, equally

(q) It is worth observing here, that since a solid extended percipient would necessarily have its perceptivity excited by material action upon it, and resistance or re-action effected in it by its solidity; since this perception would be precisely proportional to the force of the material impression, *i. e.* mechanical; and since therefore (the simplicity of our perceptivity being considered) the greatest material sollicitation would be only perceived, or at any rate most perceived; since, I say, these are necessary consequences of matter's thinking, and yet all false and contradictory to experience, it is worth observing that *Hobbes's* solution of perception, which is exactly this here given, appears thus all at one view absurd and ridiculous. For he makes perception to consist in resistance, re-action (*de sensone & motu animali*); contra-pressure, *avritvnia* (*Leviath. cap. 1.*) which plainly infers all that is here asserted.

strong, hath more material impulse than another. It might also be shewn, (from this principle, the want of material solicitation, I mean) that the power of forming abstract ideas, or abstracting perception from all matter; the power of imagination, or forming compound ideas no way impressed by matter; I say, it might be shewn by particular deductions from this principle, that these, and other activities of the soul, could no way belong to a material Percipient. But passing by these, (since the theory in Sect. 2. makes these minute ways of arguing unnecessary;) I shall only name another particular, that should practically satisfy us of the immateriality of our thinking part. And that is the consideration of the *indefeasibleness* or *unweariedness* of the principle of thought in us. We feel our bodies every now and then sinking down under their own infirmities: but the thing that thinks in us would never give over, if the body could keep up with it. It is busy all the day with the body, and all the night without the body, and all the day with the body again: and thus in a constant circle, without respite or intermission that we can perceive (N<sup>o</sup> 23. of the last) by our strictest enquiry. For the body no sooner sinks down in weariness and slumber, than this thing within enters fresh upon other scenes of action; and hears and sees things worth enquiring into: and this without the subserviency of its organs, which are then disabled from their function. That which lives and perceives in us, lives and perceives at all times; if its vital and perceptive faculty could be duly applied to by fit objects; as from this particular it appears: and from which also it appears, that it can be otherwise applied to, than by external objects through the senses. Now, without pushing this argument as far as it was urged in the last section, or taking notice of the particular reasoning there, here is such a contrariety of natures obviously discoverable, that it is a wonder men could ever find in their hearts to ascribe them to the same thing. This principle itself cannot certainly be body, nor the result of the fit disposition of body, being so incessantly active, when the body lies in a state of temporary death, because of indisposition (*r*).

(*r*) This contrariety of natures, *viz.* the indefeasible activity of the soul, and the successive failing of the body, proceeds from the simple nature of the soul, which hath no parts, (sect. 3.) so that it can lose nothing of itself by action; and from the body as made up of parts that are always in flux, and of which a constant waste is made in all mechanical and voluntary motion.

XXIV. Lastly, those very defects, which have hitherto been supposed marks of the materiality of our souls, by the help of a little attention, plainly shew the contrary. What is the cause that while awake, I am sensible of external action; and not sensible of it while asleep? A material Percipient within me ought at that time also to perceive the action of external objects; or not to perceive it, because of some disorder in matter. And thus the perceptivity and activity of matter should wear out once in the four and twenty hours; till the disorder were rectified, and that disposition restored, which made it living and sensible. Again, I cannot subsist without food, though but for a few days; nor toil constantly, but for one whole day perhaps, without running the whole oeconomy into disorder. These and a thousand other instances shew that, if activity and perceptivity belong to matter, they belong to some certain order and disposition of it. There is no appeal from this conclusion (*s*). And yet there is no possibility of making this conclusion, but by allowing the truth of all manner of contradictions (N<sup>o</sup> 2, 3, and 15.) This brings the dispute to a short issue. So that in effect, our very *eating, drinking, sleeping*; our taking medicines, curing our diseases, our *weakness* as well as strength, our *sickness* and health; every circumstance and accident of our bodies, ought easily and practically to satisfy us at all times, of the immateriality of our souls; if we accustom ourselves to think with exactness and propriety on this subject. Therefore, though it hath been here all along allowed, and supposed, that these effects are *equivocal* and *fallacious appearances*; yet we are now at last to correct that supposition: for in truth there appears no symptom, or defect, or accident in the body that is equivocal, or could follow equally from either hypothesis: but those very appearances hitherto called ambiguous, conclude against the materiality of the soul, which they were brought to support.

(*s*) To make these independent of any order, or any disposition of matter, would be to make all matter necessarily active and percipient. See also again the reasoning at note (*b*) N<sup>o</sup> 15. above.



## S E C T. VI.

*An essay on the phenomenon of Dreaming, wherein is shewn from the inertia of matter, and the nature of mechanism above explained, that this appearance cannot be the effect of mechanism, or any cause working mechanically; and thence that it must be the effect of a living, designing cause. The several hypotheses for solving this appearance mechanically, particularly examined, &c.*

**T**HE most remarkable Authors who have asserted the materiality of the soul, have in consequence of that assertion, been solicitous to account for the phenomenon of dreaming mechanically, or so as to keep free of any living and intelligent cause; as Democritus, Epicurus, Lucretius, Hobbes; as also Aristotle, though he is not explicit as to the materiality of the soul (a), and certainly was no Atheist (b). Others, because of the inconsistency of our dreams; that

is,

(a) He says, it is not body, and yet cannot be without body, — Καὶ διὰ τοῦτο καλῶς υπολαμβάνουσιν οἷς δοκίμῃ μὴτι αὐτοῦ σώματος εἶναι, μὴτι σῶμά τι ψυχῇ· σῶμα μὲν γὰρ οὐκ ἐστὶ, σῶματος δὲ τι. Καὶ διὰ τοῦτο ἐν σώματι ὑπάρχει. De anima, lib. 2. cap. 2. It seems then it is some power or property of body, the subject of other powers and properties. This is poor for the prince of philosophers. He comes nearer the truth in another place, as shall be observed elsewhere.

(b) He ascribes in the following comparisons fore-sight, order, government, and justice to God. Καθόλου δὲ, ὅπερ ἐν τῇ κυβερνήτῃ, ἐν ἄρματι δὲ ἡνίοχος, ἐν χαρῇ δὲ κεφαλῆς, ἐν πόλει δὲ νόμος, ἐν στρατοπέδῳ δὲ ἡγεμών· τοῦτο Θεὸς ἐν κόσμῳ. And to shew that the comparison comes short, he adds, Πλὴν καθ' ὅσον, τοῖς μὲν, καματωρὸν τὸ ἄρχειν, πολυκίνητόν τι, καὶ πολυμέμενον· τῷ δὲ ἄλυτον, ἀποδοῖν τι, πάσης κειραρισμῶν σωματικῆς ἀσθενείας· κ. τ. λ. De Mundo cap. ii. ubi de Deo. One might make variety of observations from this place, upon the inconsistency of the present Aristotelian Atheist. Nor is Aristotle himself (though no Atheist) consistent, who

makes

is, because the visions then exhibited to the soul, are, for the most part, not of the same nature, or in the same order of nature, with external objects; for in that, I presume, the supposed inconsistency will be found chiefly to lie; others, I say, because of this, have ascribed the perfection of rational thinking to the matter of the body, which opinion Mr. *Locke* seems to favour. And others, because these visions have no real external objects, of which they are representations, have endeavoured to maintain that there are no such real external objects; at least this was the reason why the real existence of material things was first called in question, or supposed a point which might admit of dispute. These several opinions shew us, that the consideration of this subject is not foreign to the present enquiry, but falls in naturally as a part of it; and therefore may farther serve as an apology, for attempting to account for this appearance consistently with the principles before established, especially the inactivity of matter; and for endeavouring to shew that it infers none of those absurdities, with respect to the rational nature of the soul, which are commonly urged from it; but rather proves to us the existence of some separate immaterial agents. Those who are satisfied from what goes before, that the natural powers of matter (as they are called) and of mechanism, have been extended much too far in the solution of the phenomena of nature, or rather that there are in truth no such powers; will readily allow that they can have no share in producing the present phenomenon: and those who still think that *this particular appearance* of dreaming, is an exception to all that has been said in the preceding part of these papers, will be best satisfied by going on to examine circumstances minutely. If indeed this be an exception to all that is said, *nothing at all is said*; and if what has been said be solid, this, I hope, will not be found an exception to it. However, such an intricate subject cannot be cleared up in few words; therefore let me beg the attention, and candor of those who may have leisure to read *this part* of these papers; otherwise reasons may be condemned before they are heard. We shall find this advantage from the *above-named Authors* having written upon this subject before, that it will be the more easy to assign, and fix upon, the

makes God the sole determining principle in his *incorruptible, ingenerable, necessary* world [ἐν αὐτῷ γὰρ ἰδιωτικῶς, continues he, πάντα κινῆ, καὶ περιάγει, ὅπου βούλεται, καὶ ὅπως, ἐν διαφορῶσι καὶ ἰδίαις καὶ φύσει]. A necessarily-existing world could have no determining principle of its manner of existence, no change or vicissitude in it. But all this only by the

*symptoms,*

*symptoms, accidents*, and things remarkable about dreaming: and it cannot be unfair to argue from an Adversary's account of the thing in dispute. For this reason, I shall be particular in giving their sense in their own words, lest it might be thought a false gloss had been put upon them. Nor shall I always take the advantage of arguing from such pregnant instances, as *they themselves* allow to be *fact*; but reason from common and ordinary examples. The method insisted on shall be, first to give a natural solution of the appearance itself; and then to answer the objections that may be raised against it. And here all the collateral appearances that might be urged, shall be taken into consideration; and the affinity between possessing the fancy in sleep, or dreaming, and possessing it while awake, shall be remarked; as also between visions in sleep, and visions while awake, which are called apparitions; such as *Plutarch* tells us *Brutus* and *Dion* had offered to them; whose lives upon this account, among others, he compares together; observing only the philosophical consistency, without contending for the reality of such relations. And, lastly, the *mechanical solutions* of this appearance, which the Authors above-mentioned have given, shall be examined.

II. It hath been shewn before that the soul would never cease to exert its activity upon a rightly disposed body; unless some defect and want of reparation in the body, forced this principle of life and action to desist, and leave the material organ till the indisposition under which it labours be repaired. The circulation therefore, respiration, and all the other mechanical motions of the body remaining the same, or rather becoming more regular than formerly, by the intermission of spontaneous motion; this reparation is begun to be made by the laws of the animal œconomy, and the efficiency of a *superior Power*; and the body remains without motion or sense (c). *In this state*, when all is at rest and silent,

(c) Even this shews us, that sense and life are not producible from the mechanical motions of the body; otherwise they ought to be produced in it necessarily in sleep, as at other times; and more regularly then, being constant and mechanical as their cause, and proportionally perfect with it. Indeed I think sleep would be an *impossible appearance*, if the regular motions of the animal œconomy were productive of sense and life. But see the Note (b) N° 15. of the last, *That the soul cannot be the result of an individual disposition of matter; nor therefore of a right disposition; nor therefore, à fortiori, of a wrong disposition; nor therefore, at last, of any disposition*; as also the Note at (f) N° 17. concerning the notion of a power not permanent and inherent in any subject, but constantly generated, constantly dying, existing by momentary parts, &c.

*Lucretius*



and the impressions on the sensory designedly sealed up from the view of the mind; it is easy, as has been observed (N<sup>o</sup> 13. of the last) to make new and foreign impressions on the sensory; nothing else acting upon it at the same time. And these impressions *must be perceived*; for the soul is still active and percipient; and its perceptivity is now no other way solicited by any thing external. And the register of former impressions being sealed up from its view, these new impressions must be perceived *without memory of what hath passed before*: and therefore they must be perceived *as caused by real external objects*, such as usually make impressions upon the sensory. This seems the *rationale* of the phænomenon in general, as has been already remarked (d); and according to this, we find such impressions are really made, and perceived *with such qualifica-*

Lucretius himself owns that the soul doth not sleep with the body, and that sleep is not an affection of the whole man, as Mr. Locke seems to think. He says,

*Nec ratione aliâ, cum somnus membra profudit  
Mens animi vigilat; nisi quod simulacra laceffunt  
Hæc eadem nostros animos, quæ, quem vigilamus  
Usque adeo, certè ut videamur cernere eum, quem  
Reddita vitæ jam mors, & terra potita 'st.*

Lib. 4. ver. 761.

This is remarkable enough in one who asserts *material souls*. After this, it must be in vain, one would think, for latter Writers to go about to deny, or diminish this appearance; as in many cases they endeavour to do.

(d) This, if impartially considered, seems to account naturally and fairly, for the necessary want of memory in our sleep; which is the circumstance sceptical men chiefly insist upon, as arguing the greatest imperfection in the soul; though I have shewn before the *wise and necessary* end attained, by thus hindering the soul to act, either by itself, or in conjunction with the body, *in the time of sleep and rest*. Lucretius himself is far from making this an imputation on the soul. On the contrary, observing that it could never be an argument for him, he employs his whole address to make it appear consistent with a material soul. He says, immediately after the words last cited,

*Hoc idè fieri cogit natura, quod omnes  
Corporis affecti sensus per membra quiescunt,  
Nec possunt falsum veris convincere rebus.  
Præterea meminisse jacet, languëtque sopore,  
Nec dissentit, eum mortis, letique potitum  
Jam pridem, quem mens vivum se cernere credit.*

Lib. 4. ver. 767.

He makes the memory was by all means to be made dependent on a corporeal sensory, to restrain the activity of the soul; that it might not become a *different person*, and that the body might have time for reparation.

tions; inſomuch that the ſoul hath little, if any ceſſation, (at leaſt in ſome perſons) from ſuch representations. *A ſet of new objects* is immediately preſented to it, and that ſucceeded by *another*, and that ſtill by *another*, with greater variety and latitude of nature, than what it perceives by the in-let of the ſenſes; for a new creation of things, of different ſpecies, and other natures, really beyond the licence of the *Painter* or the *Poet's* imagination, is now offered to it, or forced upon it. It muſt be owned this is a ſtrange phænomenon, and appears to be altogether unaccountable. *But it is a real phænomenon*; and, I think, much as I have here repreſented it; and certainly it *muſt have ſome real cauſe*. And it ſeems contrary to reaſon, that the more ſurprizing and ſtrange a phænomenon is, the leſs the cauſe that produces it ſhould be, or the leſs worth enquiring into; though this be the general opinion in the preſent caſe.

III. In order to ſearch out the cauſe and origin of *this appearance*, I ſhall firſt endeavour to ſhew that it is not produced by the ſoul itſelf; however ſome may inſinuate, rather than ſeem quite ignorant, that it is *the ſport of the ſleeping fancy, the extravagance of imagination, or ſome ſuch general thing*, which hath no meaning, will not bear an examination, and is in truth contradictory. The ſoul, as hath been ſhewn, is forced to abandon its working on the ſenſory, which is the ſeat of theſe impreſſions, becauſe of the expence of animal ſpirits neceſſary to keep the former impreſſions patent, or to produce new ones. We know by experience, that the fatigue of continuing to do this is intolerable. The animal ſpirits muſt be recruited, and of conſequence the ſenſory muſt be ſhut up, and the ſoul leave off acting upon it: and it is inconſiſtent to think that the ſoul ſhould be forced to ceaſe working upon the ſenſory this minute, and the next minute begin that work again. We are convinced from our own conſciouſneſs in this caſe, that the ſoul muſt finally quit all attempts of this kind, before ſleep can be brought on; and yet it is often engaged in a dream before we are well fallen aſleep; ſo that we may trace back the perceptions of the ſoul *in theſe confines between ſleeping and waking*, but ſhall not find it deſigning to amuſe itſelf, but rather *ſuddenly engaged* in beholding things, it knows not how. The ſoul it is true, is always active and percipient, or is never without ſome real perception; but it is moſt certain it ceaſes to act and perceive by the body. It might as well employ itſelf in conſtant contemplation in the time of ſleep, and thinking ſomething regular and uſeful, as in theſe odd

whimsical scenes: and yet it hath been shewn above, N<sup>o</sup> 13. of the last, that it cannot do this. Nor is the soul indulged to act by itself, and separately, so as to be a *different person*, for reasons there likewise given: nor yet would this be *acting by itself*, but on the sensory. Besides, it is inconceivable what the soul could design by these extravagancies, always deceiving, and often terrifying itself: no one can have a notion of the possibility of this. In a word, to contend that the soul may still act on the sensory, and produce those scenes of vision in it, is to forget what it was that forced it to suspend its acting on this material organ; and to suppose likewise that it would fatigue itself *madly*, without any view or purpose, when it might rather employ itself in something profitable, or at least pleasant. These reasons, drawn from what hath been already said, seem to shew with a great deal of evidence, that the soul doth not form, and present to itself those scenes. But to proceed to others.

IV. The actions of the soul must always be accompanied with a consciousness that they are produced by it, as being effected by the will. To say the soul *acts* without *willing* the action, hath been shewn in Sect. 4. to be repugnant: and since *willing* is one species of consciousness, or thinking; not to be *conscious* of our own *willing*, is not to be *conscious* of our own *consciousness*. Constant action and constant thinking require constant willing: but if we could *will* constantly, without *knowing* that we *willed*, we might act and think constantly without knowing that we acted and thought, and consciousness would be a contradictory notion. Whence it is not only easy to know whether we ourselves produce an action, or some other Being, but impossible not to know it. And in the present case we have still this farther degree of certainty, that the action or effect is not produced by the soul, but by something else; because it is *forced upon the mind violently*: the mind suffers and is made uneasy by it, and would fain avoid being conscious of it, if it were in its power.

V. Now common experience assures us, that most of those representations, which are offered to the soul in sleep, are not only not produced by it, since it hath no consciousness of any act of the *will* to introduce them; but that they are *involuntarily obtruded upon it*. It hears, sees, and feels objects at that time, not as it would itself, but such as they are made appear to it; and is just as passive in receiving these impressions, as it would be in receiving the like impressions from real external objects, by means



of the senses, when broad awake; showing as much backwardness to them, and suffering as much from them; awaking sometimes with trembling, sweating, and crying; and as much fatigued by night with such visions, as with labour and toil by day. I say, this is common experience; and there is nothing more ordinary, than to be made to fancy, immediately after we fall asleep, that we are placed on some dreadful height, or precipice, or in some slippery dangerous station, where we are in hazard of falling, or are actually *tumbling down*. The apprehensions from this visionary danger are as great as they could be from the reality of the thing represented; for the danger appears real. We awake with a start, or cry; are glad to find ourselves in safety, and the precipice vanished (*e*). The recovering our waking memory, and the reviving the real impressions from external objects, formerly lodged in the brain, disturbs these scenes, and so brings us back to our former state, and rescues us from our uneasiness (*f*). Instances of this kind are as various as frequent: sometimes we are threatened in sleep, from a *strange and ugly confluence of waters*; sometimes from *frightful and merciless animals*: sometimes we are carried

(*e*) *Lucretius* is full in most of these particulars; and at least doth not dissemble the circumstances, nor contradict the experience of mankind. At Ver. 1009, of Lib. 4. he says,

*Multi depugnant, gemitusque doloribus edunt;*

*Et quasi pantheræ morsu, sævique leonis*

*Mandantur, magnis clamoribus omnia complent.*

*Multi de magnis per somnum rebu' loquuntur,*

*Indiciisque sui facti persæpe fuere:*

*Multi mortem obeunt; multi de montibus altis.*

*Se quasi præcipitent ad terram corpora toto*

*Exterrentur, & ex somno, quasi mentibu' capti,*

*Vix ad se redeunt, permoti corporis æstu.*

(*f*) Here I may refer to the experience of most men, if ever they were sensible of greater pleasure, than sometimes when they have awakened out of a dream, and found that it was not real. It is indeed in these cases, like awaking from misery to happiness, and from death to life. A circumstance which but ill agrees with the opinion, that the soul forms, and presents those troublesome appearances to itself. And sometimes the impressions are so lasting, and the images so lively, that it is with difficulty we can persuade ourselves, after we are awakened, that the things we saw were not real. The reason of this seems to be, that the impressions are so strong, and have so thoroughly possessed the mind with a belief of the reality of the things represented, that it is some time before they can be worn out, or the mind recover itself from the astonishment it was in.

to desert and inhospitable places (g), or placed in other disagreeable, shocking, and unnatural circumstances. Now undoubtedly, in these and such other instances, 'tis absurd to say the soul would lay a plot to frighten itself, and then be foolishly in real terror with its own designs. To make this succeed, it ought to be two distinct Beings, each ignorant of the other's consciousness and designs; and the whole compounded soul be diverted with the contrivance on the one hand, and yet terrified with the execution of it on the other. These are the most common instances: there are others vastly more strange and surprizing, but equally certain: but in them all the soul must necessarily be passive and unconcerned in the production; since, that it should act without designing to act, or design to act without knowing it designed, or know that it designed the action, and yet be terrified at it, is inconceivable.

VI. To this may be added, that many of these scenes are above the power and workmanship of the soul itself (h); so that it could not produce

(g) Virgil says of Dido,

Agit ipse furem  
In somnis ferus Æneas: semperque relinqui  
Sola sibi, semper longam incommittata videtur  
Ire viam, Et Tyrios desertâ quærere terrâ.

Æneid. lib. 4. ver. 465.

This place hath a beauty, which nothing but the imitating nature could have given it.

(h) That cause which exhibits the vision to the soul in sleep, seems to have a great power over it in other respects. Sometimes we are made to think that we are flying aloft in the air; sometimes we are struck with febleness, that we cannot fly from an enemy, who seems to pursue us. We are dejected, elevated, and affected all manner of ways, which one would never ascribe to the soul itself. This is touching it another way than by barely exhibiting of vision. But that which is most surprizing shall be mentioned toward the end of the section.

Some of the circumstances of our dreams mentioned here, are well observed by the most natural sort of Philosophers; the Poets, I mean. Homer, speaking of Hector's flying before Achilles, and Achilles pursuing him, uses the following comparison.

Ὡς δ' ἐν οἴῳ οὐ δύναται φύγοντα δάκναι,  
"Οὐτ' ἄρ' ὁ τὸν δύναται ὑποφύγειν, οὐδ' ὁ δάκνει.  
Ὡς ὁ τὸν οὐ δύνατο μάρψαι ποσσὶν, οὐδ' ὁ ἀλύζει.

Iliad. x. ver. 199.

And Tasso after him yet more fully,

Come vede tal' hor torbidi sogni  
Ne' brevi sonni suoi l'Egro, o l'Insano,  
Pargli, ch' al corse avidamente agogni

D d 2

Stender

duce them, though it were willing, (for those, who are for material souls, and mechanical dreams, will not, I suppose, allow that it hath greater powers and faculties then, than when awake; and those on the other side, who are for exalting the powers of the soul at that juncture, cannot expect their assertion will be allowed them, unless they could bring good proof): but omitting this, I shall only name another, and that a very satisfying consideration, which plainly shews these representations to be the work of Agents distinct from the soul; namely, That whatever part the soul itself acts, when these things are offered to it, as it always acts some part or other, either for its own relief and defence, if the object offered is uneasy, or appears to have bad designs upon it; or if pleasant and friendly, in concurring and forwarding the effect, since it doth not lose the principle of self-preservation, or self-love; I say, whatever part it acts, *it is conscious of its own acting, and that this action is of its own willing and production.* And the memory of its acting thus, in resisting or concurring, it distinctly retains afterward, when awakened. Thus if we dream that we are conversing with any person, or doing any thing with them in consequence of that conversation; we are conscious enough what sentences in the conversation we ourselves speak, and what actions we do: and there is the same distinction and difference of consciousness, betwixt *our* words and actions, and *theirs*, as if the whole transaction had passed between *them* and *us* while we were awake. This shews us clearly, I conceive, that the soul is not the productive cause, in contriving and offering these scenes first to itself. Indeed it would be a slippery principle to allow, that in sleep *the soul acted both parts, while it were only conscious that it acted but one*: the notion of consciousness would be rendered inconsistent, as I said just now; or the certainty of consciousness and intuition would, I think, be invalidated: the case might be translated to our waking thoughts, and something more urged, than D. Berkley hath contended for, (he allows that those ideas, which the soul is not conscious of exciting in itself, are excited in it by *some other thing*, though not the thing that we

*Stender le membra, e che s' affanni in vano,*

*Che ne' maggiori sforzi, à' suoi bisogni.*

*Non corrisponde il piè stanco, e la mano.*

*Sciogliet tal' bor la lingua, e parlar vuole;*

*Ma non seguon la voce, ò le parole.*

Cant. 20. Stanz. 105.

imagine)



imagine) and that kind of Scepticism called *Egomism*, would have a new argument to support it. Let reasonable men weigh these considerations (i).

Aristotle, when he gives a definition of a dream, is very explicit in making it *only extend to what the soul is not active in*: and since he is on the other side of the question, as was said; it cannot be unfair to take his account, and really any considering person will find it to be very agreeable to nature. He makes the dream only the *φαντάσμα*, the appearance, vision, or thing represented, arising from the motions excited in the sensory, or brain (k); and explains several other concomitant circumstances, that cannot properly be called dreaming: especially this, that during such representations, *the soul hath some very right notions, and makes true conclusions*, which are not to be included in the vision, or made a distinct faculty from its waking reason (l): and that it proceeds so far in its exactness sometimes, as to be conscious that the things represented to it are but illusions (m); which it should never not do, one would think, if it produced these illusions itself. And he distinguishes the genuine operations of the soul itself, from what it is merely passive in beholding by comparing our sleeping with our waking state; in which, together with our being passive in receiving the impressions of external objects through the senses, we are also active and busy in thinking of them (n). And certainly in dreaming it is so; it is far from being true that the soul then is only percipient, exclusive of being active; for it is

(i) These considerations are suggested here, because of a doubt started against the argument in this paragraph; of which below.

(k) Ἀλλὰ τὸ φαντάσμα τὸ ἀπὸ τῆς κινήσεως τῶν αἰσθημάτων, ὅταν ἐν τῷ καθεύδειν ᾖ, ἢ καθεύδῃ, ἢ ἐν ἰνύπνῳ. lib. de insomniis, cap. 3. He hath taken pains before to distinguish from the φαντάσμα, all circumstances that might be mistaken for it.

(l) In the words immediately before these last cited, having concluded—Ὅτι εἴεν ἰνύπ-  
να φανέν. He adds, εὐδ' ἐστὶ δὲ ἐν τῷ ὑπνῷ γιγνέται ἀληθινῆς ἰνύπναι, παρὰ τὰ φαντάσματα. It would be absurd to say any thing is the vision that the soul does itself, e. g. To say I dreamed that I thought is improper, since I really thought what I thought; nor would it be less improper to say, I dreamed that I saw, or that I heard; for I had really these perceptions, though their objects did not exist externally.

(m) Καὶ ὅτι μὲν, ἢ δὲ λῆγει ὅτι ψεύδῃ τὸ ὁρώμενον, ὡς περ ἐξηγητὴς· ὅτι δὲ, κατέχεται καὶ ἐκκαθάρσει τῷ φαντάσματι. Ibid. cap. 1.

(n) Ἐστὶ παρὰ τὸ ἰνύπναι, ἰνύπναι ἄλλο τι, καθάπερ ἐν τῷ ἐγρηγορῆσαι αἰσθανόμενοι τι· περὶ οὗ γὰρ αἰσθανόμεθα, πολλάκις καὶ διανομέμεθα τι· οὕτω καὶ ἐν τοῖς ὑπνῷ, παρὰ τὰ φαντάσματα, ἴσμεν ἄλλα ἰνύπναι, φανέν δ' αἰ τῷ τέτῳ, ἢ τῷ πρῶτῳ τοῦ πρῶτου, καὶ πρῶτο μνημονεύει ἀναστὰς. Ibid.

just as active, as it would be in like circumstances, when the person is awake. Perhaps it was the consideration of its being thus busied then, that hath made some men inadvertently assert, that it produces every thing seen, or heard, in sleep, unknown to itself; having nothing readier to say. This was the *Epicurean* solution of dreams, as I shall have occasion to observe hereafter. But the difference here marked, made *Aristotle* reject that account as absurd; and although *Democritus's* *adulæ* avoided this absurdity, yet he rejects that also for other reasons. And generally they all reject one another's accounts as unsatisfying: whence it appears there is reason for rejecting them all. Moreover, if as we go along, we cast our eyes upon these several particulars observed by *Aristotle*, and examine well in what the soul is only active, we shall not find it so irrational and inconsistent as is generally presumed. It is very inaccurate, to ascribe all the wild representations, that are involuntarily forced upon the soul, and which, as was said in the last Section (N<sup>o</sup> 10 to 13.) it is under a necessity of perceiving, to the soul itself, and then insinuate that it owes the perfection of rational thinking to matter. Whereas I think it is more philosophical to say, that if the soul were not united to a material sensory, where these impressions are made, it could not have such scenes obtruded upon it: and, if its activity were not clogged by the indisposition of matter, so as to hinder its bringing its past perceptions back to view, (see N<sup>o</sup> 11. and 13. of the last) it would be no more liable to be imposed on then, than at other times.

VII. As these representations cannot be effected by the soul itself, because it is as undesigning, passive, and involuntary, as it could be in seeing the same disagreeable objects while awake; so they are such as require a living, designing, and intelligent cause to produce them. Thus when one dreams (still to take a common, or at least, an instance no way extraordinary) that a man pursues him with a drawn sword, and withall threatens him, in words, the sound of which he plainly hears, and the sense of which he plainly understands; it is as impossible that these impressions can be made on the sensory, and these ideas excited in the soul, by any thing but a living intelligent cause, as it is that consciousness and spontaneity should belong to any thing but such a cause. Here is *design, life, action; articulate words importing connected ideas*, and those ideas excited in the soul; and all involuntary as to it. — And now let a man think closely upon this appearance; let him try his invention

to make out another cause, if he can, consistently with all that is shewn before in these papers. But let him also take this caution along with him, That philosophy doth not hinder him from finding a cause that can do more than produce the effect; though it strictly prohibits him to assign one that cannot do so much: and a free cause doth not always act to the extent of its power; nor will the effect appear so despicable, if narrowly examined. — The only causes (exclusive of an intelligent cause) that can be named, are either *chance*, or the *mechanism* of the body; since it hath been shewn, that the soul itself is not this cause. But it is scarce to be supposed that any body, understanding the import of those two words, could assert that either of them was the cause of such an appearance. *Chance*, as hath been said, is only a word which we make use of, when we are ignorant of the true cause, whether intelligent or mechanical; as when an effect is produced through a train of causes too long for us to see the beginning of, or where the dependance lies too deep for us to find out. But to suppose chance a *real, efficient cause*, or *some positive agent*, subsisting by itself, blind and unintelligent, doing it knows not what, nor how; and yet producing effects, where there is design, and an end proposed, and this end attained by just, natural, and compendious means, is to dress up a contradiction in our own mind, and to give it a name. It is not only to make the cause act above its power; but it is to feign a cause, and give it an imaginary power, where there is none at all (o). As to the *mechanism* of the body, or any other mechanical and necessary cause, it is the most incompetent of all others. (See from N<sup>o</sup> 12. of Sect. 2.) This could never account for the *life*, the *action*, the *variety*, observable in the appearance of dreaming; nay for the *sentiments*, the *reasoning* in many instances. The impressions then would be determined, and invariable, without life and diversity; just the opposites of what they are. The surprizing and really endless diversity, seems designed on purpose to exclude the *fixt, unalterable measures of mechanism*: and the design, life, and spontaneity, to exclude any *blind, or surd efficient*. If mechanism could produce a consciousness and reasoning, different from that of the soul itself,

(o) *Lucian* himself says, — Εἰμαρμένη καὶ τύχη ἀντίστατα, καὶ κινὰ τῶν πραγμάτων ὁρίματα, ὑπὸ βλακῶν ἀνδρώπων, τῶν φιλοσόφων, ἐπινυθίζεσθαι. *Deor. concil.* It is true, he joins in them, that he may not confess a truth gratis.



as is the case where we seem to converse with others in sleep; it might produce the consciousness and reasoning in our soul: For shewing how absurd this is, how far it would put an end to all rational enquiries whatsoever, I refer not only to the place just before named, but to the beginning of the last Section. Allow but thus much to the Sceptick, and he will defy all the Philosophers that ever lived, to establish one certain truth in philosophy, or to infer any higher cause of appearances, than what *Lucretius* has assigned. And are not men aware *how much they abet the atheistical scheme by arguing thus?* *Lucretius* was much more clear-sighted, who was justly afraid of this phenomenon. Though *mechanism* is now become a *learned word*; is it any more than only one particle of matter's being impelled by another, as they resist each of them a change of their state; and that still by another, until we come to the particle first moved? And the oftner the motion is thus communicated, the first impressed quantity of it necessarily becomes the less, if it be not kept up to the first height by an extraneous power. And how stupendous doth the multiplicity of the action of the *first Cause* appear to be, in constantly maintaining the mechanism of our bodies! If matter then cannot keep up mechanical motion in itself; can it rise to perfection infinitely excelling that, both in degree and kind? If it were matter that spoke the threatening words in the present instance, and performed the consequent threatening gestures; that is, if it made those impressions on the sensory that excite these appearances in the soul, would he be much in the wrong, who should say, matter thought and reasoned? I rather think he would not. If we should either suppose that the *sensory* makes these impressions on itself, or that the *animal spirits* combine to impinge on it in such order, or that the *blood*, as it circulates, stops, or accelerates itself so, as to perform all this; or lastly, that *these several things* conspire together to mimick life and spontaneous motion; in all these suppositions, every thing is *inconceivable, absurd, impossible*. It was observed before, that if the mechanism were *simple*, we should expect no great things from it; but if it be very complicated, we think it not impossible for it to become a *power* to itself: and yet this is a grievous prejudice, for all the reason is on the contrary side. A complicated piece of mechanism wants, if possible, a *power* more, as more of the impressed motion is constantly consumed. And after this it can ill be alledged, that mechanism is the cause of the present appearance. And if it cannot be the effect of a cause working mechanically;

mechanically ; it follows that it must be produced by a *living, intelligent Cause*: as was asserted (p).

VIII. We may also be satisfied, that it is such a cause from this consideration, that if a real man, whom every one allows to be a living, intelligent cause, such as is represented to us in our sleep, pursued us while awake, with such a weapon in his hand and uttering such threatening words ;  
the

(p) I beg leave, before I proceed, to take notice here of a difficulty in my way, and the rather, as it proceeds on a common prejudice, which men are but too apt to dwell on, and take only a cursory glance of what is said against them. It is asked, " May not a peccant or redundant fluid in the body, be the occasion of the soul's exerting its operations in an irregular or disagreeable manner? And may not the want of what is necessary for our sustenance occasion the soul's raising delusory scenes in the imagination? May not a hungry man dream that he eats at a full table, or a thirsty man that he drinks plentifully, without the active interposition of some separate spirit?" — A fluid, whether peccant or regular, is only a multitude of sluggish, inert particles, that cannot move themselves, or, if moved, cannot change their direction; but equally resist a change of state as well in motion, as in rest. Therefore the least approach to spontaneity cannot be expected from them. This seems decisive. *Peccancy* is but a *defect*; if a right disposition of dead particles can do nothing arising to life and action, a *wrong disposition* can much less do it. (See the Note (b) in the last.) That the peccancy of a fluid may be the occasion of the soul's exerting its operations, in an irregular or disagreeable manner, is an equivocal way of speaking. It may be an impediment or *hindrance* to the soul to exert its operations regularly; but it cannot be the occasion that the soul should act *without knowing that it acts*; should form a living spectre to fright and terrify itself; should pronounce words, and think another pronounced them; in short, *should not be conscious of its own consciousness*. The *blood*, the *serum*, the *brain*, the *sensory*, &c. are all but dead matter: we have seen that it requires the constant action of an immaterial power, to move them mechanically, and to keep up that motion in them. If these fluids, or sixt parts, could perform any thing above mechanism, or be the cause of the present appearance; would not the same reason, that obliged us to allow the *mechanical power*, oblige us also to allow *another spontaneous power*? If this was a just inference in a like case above (Sect. 2.) it cannot be wrong here. There is the same reason for rejecting the living powers of dead matter, with respect to the fluids, or sixt parts of the body, as with respect to other matter. How unwillingly we quit a prejudice of an old standing! and yet, I think, it must be parted with. A plant doth not grow, a stone fall downward, without a *foreign impulse*: can matter then sport and divert itself, mimick all the appearances of life and reason, while we sleep, as *Lucretius* supposes? Or can it lay the soul under an enchantment, so that it should perform a thousand tricks and gambols, surprizing in all respects; and still think another cause performs all? *To be not conscious of its own consciousness*, is an undeniable contradiction; it is *to have and not to have* consciousness at the same time. Is not this a firm enough principle to build the conclusion upon, That the soul is not productive of what is obtruded upon it? It is sufficiently conscious of *resisting*, instead of *forwarding* what is thus forced upon it; left we should say, that it may forget what passes at that time. —

E c

But

the same, and no other impressions, would be made on the sensory, and the same ideas excited in the soul, as by this visionary person in the dream. So that we must either deny the man, who pursues us while awake, to be a living intelligent cause; or allow the cause which excites the same ideas in our soul while we sleep, to be, at least, equally living and intelligent. For though the same effect may be produced by different causes; yet, *the effect being the same*, the causes must be equally powerful and perfect in the production of it, whatever inequality may be between them upon other accounts. If this be not so, where can we stop in doubting or denying?

## IX. If

But this, it is said, is a low occupation for separate spirits to be concerned in. But if they do perform this, who can help it? What if this be but a *prejudice* of ours? Hath not every the most despicable *reptile, insect, animalcule*, an immaterial soul joined to it? Is not this as now an occupation, to be confined to move *these atoms*? What if it be an occupation that requires the exertion of *much power and knowledge*? Or is there a scarcity of living immaterial Beings? Have we any other thing to prove this, than our own suppositions? Why so much *dead matter*, without *living immaterial substances* in proportion? Or are they all of equal dignity, equally highly employed? Who told us so? We should perhaps find out other business for living Beings? But we are not the contrivers in this affair, but the God of nature. Is there a necessity of interesting separate spirits in every frivolous trifling scene that is offered to the soul in sleep? Why not! Every scene, how frivolous and trifling soever, is a *real phenomenon* in nature, and must be produced by *some adequate cause*. Philosophy doth not regard how far appearances deviate from our rules; but considers them as they are. The necessity is, that we must ascribe this effect to a *cause that hath power to produce it*, or to *dead matter*, which we are sure hath no such power at all. Let any one chuse. This conclusion is a *consequence* of the *inactivity* of matter. Take a parallel instance. Gravity is a constant immaterial impulse exerted upon all matter fluid as well as solid. What so *trifling, frivolous, unregarded* a phenomenon is there in nature, as the irregular motions and surface of running water, or of the sea waves? But let philosophy account for this, without the *constant action* of the *very first and highest* Being. It ill becomes us to set so high a value upon those Beings, when the power of the highest Being is subservient to those offices in the animal oeconomy which we think vilest. Or are we afraid of renouncing altogether the *active powers* of inactive matter; or of acknowledging too much life and power in nature? I am sure we shall never free our philosophy from absurdity, till we have rectified our notions in this respect. Let us reflect that *bare spontaneity* of motion is an appearance, that makes us allow an *immaterial mover* in creatures that have not the least vestige of reason in their actions. Pursue this hint. Every one will allow an extraordinary cause of some certain dreams that are monitory, or significant of some future event. This is right; if these instances are well vouched; but, I think, this is not so much the business of *natural philosophy*; at least it is not the design of this Essay. However those who come thus far (and even *Hobbes* comes thus far, *Aristotle* farther) have got over all that is difficult; since they allow what is contended for, in *some cases*, and at *some times*. And what is *ordinary*, can as little want a sufficient cause, as what is *rare*. I own, I know nothing



IX. If we should see, while awake, the picture of a man holding a drawn sword, in a piece of arras, we should conclude, without the necessity of arguments to compel us, that this was the work of *some Artist*, some *living, intelligent cause*, that knew how to work after his own idea, or at least after a copy set him. And if we saw farther a sentence woven, as proceeding out of the mouth of this picture, and were sure that it were of

thing concerning the conditions and circumstances of these separate Agents; and I contend for no *hypothesis*. Every one may make an hypothesis for himself. Some have been made for time immemorial: men may chuse of these what pleases them best. I only contend for the agency of separate living Agents in the present phenomenon, in opposition to the powers of matter and mechanism; since the soul itself in many cases could not, and in others certainly doth not exhibit these scenes to itself; and of consequence I infer that such Agents must exist. And this by the same kind of argument, that I infer, from the appearance of gravity, that a Being must exist to give that constant impression to matter.

I cannot agree that the want of sustenance, or any other want, should be the occasion of the soul's raising delusory scenes in the imagination; though it may be the occasion of another Being's doing this. The *imagination*, if it be taken as distinct from the power of the soul itself, must be the sensory where impressions are made. That the soul should make impressions here, to delude itself, is not to be conceived. If *imagination* be taken as something belonging to the soul; it is its own *active power* of voluntarily joining ideas together, without objects *ab extra* to cause them. That it should couple together ideas by this active power, without being conscious of its own workmanship, is as little to be conceived; and *if it were conscious of this*, the scene would not appear offered to it as real. In the example of *eating or drinking*, we are to distinguish with *Aristotle*, what the soul itself doth, from the *παράστασις*, or *scene exhibited*. The soul as much exerts an act of the will, to eat or drink, as it does at another time; and unless it thought the meat and drink were real, it would not exert this act of the will. This part then of exhibiting the appearance of real meat and drink to it, is the phantasm, nothing of its own production. But this is always accompanied with other *circumstances of persons, actions, &c.* that make the thing plainer. We do not dream that we simply eat and drink, without the circumstances of time, place, company [at a full table, it is said in the objection.] A late excellent Author hath well observed, that the soul would be much distressed, if it dreamed that it were always solitary and lonely in sleep. *Dido's* being alone in her last visions was an aggravation of the uneasiness. Motion then, life, action, persons, are not the effects of mechanism. And though in this instance the soul doth not resist, but concurs in the representation (which, I suppose, is the main ground of thinking it the productive cause of the whole) so that the argument in N<sup>o</sup> 5. will not be applicable; yet there is the same difference and distinction of consciousness, betwixt what the soul itself doth, and what the persons in the vision seem to do, as between the Objectors raising the present scruple, and my endeavouring to solve it. Whence the argument in N<sup>o</sup> 6. comes up to it. The notion of consciousness would otherwise be confounded; and the evidence drawn from it, weakened.

the Artist's own design and compofure ; we could not help concluding that he understood that language. But if it were poffible for him to make his picture *move* ; give it *life* and *action* ; and make it *pronounce* this fentence audibly, as if the Artist himfelf had pronounced it ; or it may be more fentences than one ; and if he could fo contrive it, that the *motions*, *countenance*, and *theſe words* of the picture, ſhould all *concur* to one uniform purpoſe and design, fo as naturally to represent the actions, words, &c. of a living man ; we ſhould then not only conclude that the contriver of this was a living intelligent cauſe, but highly admire his art and ſkill, as far furpaſſing any thing we ourſelves could pretend to ; if not ſuſpect that ſomething of a ſupernatural power had aſſiſted him. Nor would it leſſen the wonder of this performance, or be a reaſon to deny the knowledge and invention of the contriver, though ſome unthinking Peaſant beheld it with as much indifference, as if there were nothing remarkable in it. This inſtance nearly enough reſembles the caſe in hand, the ſcene of viſion in our ſleep. But becauſe ſuch appearances are frequent, we let them paſs unheeded : though the intelligence, and power of the cauſe that produces them, is not the leſs, whether we conſider them, or ſuffer them to paſs without reflexion. Things that are too much above our reach, and ordinary way of thinking, generally paſs as little regarded by us, as things that are trifling : witneſs the *wonderful power* of the Deity, conſtantly exerted through the material univerſe ; the *viciffitude* of night and day, &c. An object, to engage our attention, muſt have ſomething of our own *littleneſs* in it. And yet, which is remarkable, the generality of mankind have been led to the true cauſe of the phænomenon we have been conſidering, by hearkning to natural and unbiaſſed ſenſe ; while learning and philoſophy have made others miſtake it altogether ; ſome without heſitation aſſerting contradictions, and others not gain-faying them. To refine in a plain caſe, is to miſapply learning. *Atheiſm* could never otherwiſe have commenced. As has been ſaid in a like caſe before, when ſpeaking of a ſtone's falling down to the earth ; if a man dreamt only but once a year, how much more would the rare phænomenon be attended to ? The night would be expected with impatience, and all the circumſtances marked with care. With how much more ſolicitude, may we think, do thoſe, upon whom the ſun riſes after ſome months abſence, expect that *glorious fight*, than we upon whom it riſes once in four and twenty hours, who neither regard the riſing nor ſetting of it ? But is there any reaſon for this ?

X. The instance above, of a man with a drawn sword, &c. which I have here pitched upon, and argued from, is plain and simple, and hath nothing in it extraordinary. Whereas almost every man's own experience will suggest to him, or his future observation will soon furnish him with examples, of seeing in his sleep more variety of circumstances, and a longer series of action than is here mentioned. And observation and experience, with reflexion on the particulars, are that which will best *convince*: nor is it easy to conceive that any should want thus much experience, when the Authors who maintain mechanical dreams, and material souls, give much more surprizing instances (as will appear below) such as pleading at the bar, fighting, &c. though I designedly avoided arguing from such examples. But this instance before us, simple as it is, or though it had been more simple; nay though it had happened only to *one man*, and that but *once*; provided we could have been certain that it had happened once, and was fairly related, must justify all that is inferred from it here, or designed to be inferred. An effect, though it be *but once* produced, as certainly infers the existence of the cause that produced it, and as necessarily concludes that this cause must have had power, and perfection enough to produce it, as if it had been repeated ever so often. For if a contradiction could be *once* effected, by a cause's producing an effect above its power, nothing could hinder it from being effected *any number of times*. But as it is, such instances are numberless, and as different from each other, as the persons to *whom* they are represented, or the times in *which* they are represented to the same person; and it is looked upon as uncommon, if the same man hath the same representation twice offered to him: a circumstance that well agrees with the cause assigned; but no way with mechanism, or any other thing that could be named. If therefore we consider the almost *infinite variety* of such scenes, which are either offered to the soul in sleep, or violently obtruded upon it; the *sentiments*, and *reason* in many of them, the *spontaneity* and *life* in most of them, in so much that there is scarce any production in art or nature, commonly reckoned wonderful, that cannot be parallel'd in some one or other of these instances; not to mention the *deviation from the present natures of things*, which must still appear more wonderful to us, if we are right judges, as will appear by going on: and if we join all these together, we must agree, that whatever kind of reasoning, or argument, shews that the works of art are the works of living designing Beings, or even that this great frame



frame of visible things, is the effect of a *living, intelligent powerful cause*, will in some degree be applicable to them, to shew that the cause which produces them, must be living and intelligent (*q*); and that if these are not the effects of a cause that hath life, knowledge, and contrivance, we must for ever lose the *distinction* between the actions of such a cause, and of a mechanical, necessary cause, nor pretend in any other case whatsoever, to determine by the effect, of what kind the cause is. For, as has been said, allow the Sceptick but thus much, that such an instance of life, action, and design, is effected by the *temerarious, surd jumble* of dead atoms; and he knows not how to use his advantage, if he cannot defy all the men in the world to establish upon him the necessity of any wise and designing cause in nature. To apply *Galen's* reasoning, with respect to the contrivance and mechanism of the animal body, *to the present case*; What can be the effect of a cause, working with design and knowledge, if the *instance assigned above*, and numberless such others, be the effects of blind chance, or mechanical necessity? It is impossible to answer this question in either case. For the effects of the *first* must be of a quite different nature from those of the *last*: or, the effects of a living, intelligent cause must have no marks of design and contrivance in them. This is to change the natures of things; or else to speak by way of contradiction. What would one conclude (to give another very applicable parallel) if he sometimes saw a *Musician* play on an instrument; and by and by heard the same tunes, and even a greater variety of them, played over on the same instrument, when no *visible Artist* was near? The sensory is the *instrument*, which is sometimes moved by the action of external, living objects; and in darkness and silence, *the same way moved*, or with far greater latitude, and compass of notes, those objects being all removed. Indeed to exhibit words and sense requires by far the *most artificial touch* of musick; as to exhibit scenes of life and real motion, is the *hardest kind* of painting.

(*q*) It is only here meant that this argument is of the same nature, and concludes upon the same account, as the arguments *à posteriori*, for a wise and powerful cause of the visible effects in the material world; though not of the same force and conviction. And yet if it could be shewn, that but so much as the instance here assigned, were possible to be effected, without a designing living cause, it is not conceivable that any thing could be a more *convenient* introduction to the fiercest, the Epicurean Atheism. If the principle, that the effect cannot be perfecter than its cause, could fail in this appearance of dreams, no man could tell how far it might fail in all the parts of *philosophy*. All truth stands, or falls together.

XI. This

XI. This is, I think, the genuine and natural solution of this appearance; not liable to any absurdity, or even difficulty, with which other methods of accounting for it are pressed; as I hope will be made appear. These seem to lie on those, who ascribe *the effects* of life and action to *dead matter*. And for this reason it is asserted, that there are living Beings existing separate from matter; that they act in that state; that they act upon the matter of our bodies, and prompt our sleeping visions. Matter, in the philosophy of many, has usurped the *power* of the living God, the *power* of the human soul, and the *power of all other living and intelligent causes*: And if reason throws it out in the two first cases; it is hard to say, why it should not in the last. It is a sluggish, inert substance in all cases equally; *inactivity*, and *resistance* to a change of its state, being inseparable from it. If once we allow of an *infinitely powerful and perfect Author* of the Universe, the very *proportion* and *reason* of things, would make us vehemently suspect, that there cannot be *so much* dead substance, and *so few* living Beings created in it. All from brute-matter to the soul of man, is a curious and wonderful scale of perfection, rising by easy steps; but, certainly, the human soul cannot be the perfectest living creature; unembodied spirits should not, one would think, make a mean part of a rational creation, but rather by much the most considerable part. It may also be supposed, that the higher orders of these Beings may be employed in things proportionable to their nature and perfections; *but not to speak more of that*, the existence of inferior species is evident, I think, from the present phænomenon. This seems the natural lesson we should draw from it; for, as was said, God and Nature do nothing for no end, or for a bad end; only to stumble men: its an argument against Atheism, and the Atheist himself is terrified at it. Others might have reasoned on this subject from other topicks; and perhaps better: But the theory as in this Essay, is a *consequence* of the inertia of matter, which it would have been improper to have omitted.

XII. In establishing this conclusion, *That our dreams are prompted by separate immaterial Beings*, I endeavoured previously, or by way of a lemma, to shew that the *φαντάσμα*, or what is properly called the vision, is not the work of the soul itself. This is thought exceptionable, and not evident enough to support the weight of such a conclusion: Wherefore before I proceed farther, I shall endeavour to shew the truth of this principle.

*Principle.* It is said, "The soul itself is the productive cause of all that we see in sleep, and that from the change which happens to the seat of memory during our sleep, we may remember all the scenes of our sleeping imagination, and yet have no memory of the soul's exerting an act of the will to imagine those scenes; just as in some disorders of the brain, the memory is entirely lost as to certain past actions, and yet preserved as to others." But, with submission, there is a great difference in these two cases; so that we cannot argue from a parity. After *these disorders* of the brain are over, we do not remember that we acted one part in a conference, and that the other was involuntarily obtruded upon us; the memory only of certain of our past actions is entirely lost, as is said: Whereas in dreams we clearly remember a part which *we ourselves* said or did, and as clearly remember *another different* part, which was forced upon us, or in acting which we had as little concern, as we have when another person says, or does like things to us while we are awake. And this alternate speaking and replying, or this difference, in *our* producing a part of the action, and *another Agent's* producing another part of it, is continued to some length in certain instances. Now the particular that I insist upon is, not only *that we do not remember* that we ourselves acted such a responfory or opposite part; but *that we remember the contrary*. It is one thing to remember that I said so and so to another person, not remembering the rest; and quite another to have such a clear distinction of memory as in the case before us, of what I said to him, and he to me. In the first case *there is a perfect forgetfulness of something*; and in the other, a *perfect remembrance of it* with a contrary circumstance; (*viz.* that not I myself, but another person, put the question, or did the action.) I wish this were taken notice of. Thus this objection supposes that the soul *forgets*, not only its past thoughts, but its *present thoughts*, and that at the very time when they are present to it; which is a direct contradiction: nay, that it may have a consciousness that its present thoughts (while present) may be the thoughts of another Being; which increases the contradiction: and because a want of memory of our past thoughts is possible, it infers that a want of consciousness of our *present thoughts* is also possible; and farther, that we may be conscious that our present thoughts are not our present thoughts, but the thoughts of another person. Hence it appears the intended parallel is quite misapplied, because the simple forgetting a thing no way comes up to that clear distinction of memory and consciousness which we have in our dreams.



XIII. All this has been pretty fully expressed in the sixth paragraph above, where I have shewn that the soul can never be said to produce that which it is conscious another Agent produces, without ruining and confounding all the evidence of self-consciousness. But that this point may be the more attended to, I will take a particular example and reason familiarly upon it; and I shall pitch on such an instance as can be liable to no suspicion. It is known that *Cicero* was professedly an Academick; and that he wrote designedly in his treatise *de Divinatione* against this very conclusion which I maintain; and endeavoured to account for the appearance of dreaming the same way, as is done here in the objection. *Cicero* then being of this doubting sect, and writing on the opposite side of the question, tells us a dream of his own; which are circumstances, I think, that must free such an instance from any reasonable suspicion of credulity, or unfairness in the relation; and I shall give it in his own words. He brings in his brother *Quintus* managing the argument on the opposite part, and alledging his [*Cicero's*] dream against himself, as also another of his own [*Quintus's*]. I shall transcribe both. *Quintus* after having brought many other examples, some of which are remarkable enough; says, *Sed quid vetera aut plura quærimus? Sæpe tibi meum narravi: sæpe ex te somnium audiivi tuum. Me, cum Asiæ provinciæ præessem, vidisse in quiete, cum tu equo advectus ad quandam magni fluminis ripam, provectus subito, atque delapsus in flumen, nusquam apparuisses, me contremuisse timore perterritum: Tum te repente lætum extitisse, eodémque equo adversam ascendisse ripam, nōsque inter nos esse complexos. Facilis conjectura hujus somnii; mihiq̃ue à peritis in Asiā prædictum est, fore eos eventus rerum, qui acciderunt.* This is *Quintus's* dream, which I shall not stay at present to argue from: any one who reads it will see the marks of involuntary representation in it, or of its being forced upon him; and consequently which of the solutions is most applicable to it. *Cicero's* own dream follows. *Venio nunc ad tuum* (continues *Quintus*.) *Audiivi equidem ex teipso: sed mihi sæpius Sallustius noster narravit; cum in illâ fugâ, nobis gloriosâ, patriæ calamitosâ, in villâ quâdam campi Atinatis maneres, magnâque partem noctis vigilâsses, ad lucem denique arctè, & graviter dormire cœpisses: itaque quamquam iter instaret, te tamen silentium fieri jussisse, neque esse passum te excitari: cum autem experrectus esses horâ secundâ fere, te sibi somnium narravisse: Visum tibi esse, cum in locis solis mæstus errares, C. Marium cum fascibus Laureatis quærere ex te, quid tristes esses? Cùmque tu, te tuâ patriâ vi pulsum esse dixisses, præbendisse cum dex-*

*tram tuam, & bono animo te jussisse esse, Licetque proximo tradidisse, ut te in monumentum suum deduceret: & dixisse, in eo tibi salutem fore. Tum & se exclamasse Sallustius narrat, reditum tibi celerem, & gloriosum paratum, & Teipsum visum somnio delectari. Nam illud mihi ipsi celeriter nuntiatum est, ut audivisses in monumento Marii de tuo reditu magnificentissimum illud S. C. esse factum, referente optimo & clarissimo viro, consule; idque frequentissimo theatro, incredibili clamore & plausu comprobatum: dixisse te, nihil illo Alinati somnio fieri posse divinus. De Divinat. lib. 1.*

XIV. This is Cicero's dream, and as he tells it himself; whence it appears his Brother and he had often admired the particularity of it in their private discourses. For Cicero was prosecuted by Clodius, and forced to leave Rome in the forty-ninth year of his age, to which expulsion this dream refers; and he lived fourteen or fifteen years after. And I dare say when the thing itself happened, and afterward when the consequence foretold fell out accordingly, he ascribed it to quite *another cause*, than he does now in his *academical Philosophy*. But to apply the objection above to it. Here he remembers that a question was put to him; namely, *Why he was so sad?* and who put it; and what he himself replied, *viz.* That it was *because he had been unjustly driven out of his native country*. Now if he had put this question to himself, why should he have been made believe that *Marius* put it? Or why should he remember that he made the answer *only*; and not only forget that he asked himself the question (as the objection supposes) but remember it with a quite contrary, nay with an *inconsistent* circumstance; to wit, *That another person asked it*, and not he himself, which the objection does not consider. Or what *powerful Demon* can so affect the consciousness of the soul in sleep, that it shall act two different, *and opposite* parts; and yet be not only not conscious of acting the one of them, but conscious of *not acting it*; or of being passive, *often involuntary*, and of another Agent's producing it? This would bring in the *agency of spirits*, in as wonderful a manner at least, as that which I contend for. No mechanical cause; nothing less than a powerful, living, designing Being, could make the soul *remember* and *forget* so rationally, in such order.——A man only forgets what it is proper he should forget, so that *two persons* may be made out of *one Agent*!——I seriously wonder how men can broach, or maintain such absurd fancies.——Or lastly, upon Cicero's own principles, *That the soul itself produced the whole action*, where had been the divinity of this particular

cular vision, which *Quintus* says he found in it?—*Dixisse te, nihil illo Atinati somnio fieri posse divinus.*—To say a dream is divine, is to say it has a divine original: and to say nothing could be more divine is yet a stronger assertion of some divine power exhibited. He should, consistently with his own notions, have instantly recollected that there was nothing new or surprising here. Which shews, as I observed just now, that the pregnancy of the instance, while recent, made him forget his *academical conclusion*. Besides, *Marius* took him by the hand; bid him be of good courage; ordered one of his *Lictors* to take care of him and convey him into his own [*Marius's*] monument; and told him that his present troubles should be relieved, and he find safety there. Was all this; the *Lictor*; the taking him by the hand; and the exhortation to be of better courage, only the imposture of the soul itself to deceive itself? If at this rate we make but one person of two, there is no reason why we may not contrarily make two out of one, and pretend that whatever we do while awake, may still be done by one or more different Agents. And thus, as I said before, (N<sup>o</sup> 6. and 13.) this assertion, *That the soul itself may produce what it thinks (or is conscious that) another Agent produces in sleep*, destroys the evidence of self-consciousness, which is the surest and most intuitive foundation of all our knowledge; or rather it takes away self-consciousness altogether, and leaves no distinction between our own consciousness and that of another person.—I think another person speaks or acts so and so; yet it is really I myself who speak and act.—Contrarily therefore, I think I myself say or do such a thing; yet it may be another person. Thus we must not loosen the foundations of this evidence of self-consciousness in one case, and then confine the consequence of it to that case only: The contagion will spread; and the event will be putting a rod into another man's hand to chastise ourselves. If my consciousness of writing this at present, is not enough to ascertain it mine; my not-consciousness of doing what I see another person do, is not enough to ascertain it not mine. Let the *Academick* see where this will end. I know the modern *Academick* hath learned to doubt, [or to pretend to doubt] whether the *EGO* of this present time, be the same with the *EGO* of any past or future time (see my *Lord Shaftsbury's Characteristics*): But the opinion asserted in the present objection goes farther, and would pretend to shew that the *EGO* and the *TU* of the present time, may both be but one and the same person. Thus *Des Cartes's* principle, *Cogito, ergo sum*, may no longer be true; for while I fancy I think, it may be some other thing that thinks, while I am not so



much as existing. And all these are no more than the genuine consequences of supposing *that the soul may act and say in sleep, what it thinks another Being acts and says at that time*: Whence the certainty of the contrary principle, established in N<sup>o</sup> 6. is fully evident.

XV. But what does *Cicero* answer to this particular instance? *Mibi* (says he) *temporibus illis multum in animo Marius versabatur, recordanti, quàm ille gravem suum casum magno animo, quàm constanti tulisset. Hanc credo causam de illo somnandi fuisse.* De Divinat. lib. 2. What a poor unsatisfying shift is this! Had he not *Camillus* and *Scipio Africanus* also in his mind? Why not have dreamed of these? especially since there was a greater affinity between his banishment and theirs, than between his and *Marius's*, who had but what he deserved; for they bore their exile with much more constancy and greatness of mind than he did. But allowing he had thought of no other banished Roman but *Marius*, was *this thinking of Marius* enough to have put words in *Marius's* mouth? to have given him *life and action*? to have given him such particular action; such particular words? A thousand different kinds of action, and a thousand other forms of speech might have been imagined, all as apposite to the purpose, as those he used. And must there not be a *determining cause* assigned, which out of such a variety pitched on what was so odd? I would have this *determining cause* a little more thought of, and not passed over so lightly. Indeed *chance* is the *determining cause* in the greatest part of our philosophy; and with the assistance of that *we make any thing do any thing*. But what if he had not thought on *Marius* at all, and yet had dreamed of him? for this is a very common circumstance in our dreams. What then would have become of his *banc credo fuisse causam*? I cannot help making a reflection here, *that the Academick, (either ancient or modern) is often to be pitied, who by his principles, and to maintain the credit of never being convinced, is obliged to dispute against every thing, even the plainest truths. This is a drudgery one would not be bound to undergo, and must of course make the Academick often absurd, and sometimes perfectly ridiculous.*

XVI. As to the prophetic or monitory nature of this particular Dream, I have nothing to do with it; that lies at *Cicero's* own door, who relates it as having happened to himself. (For it is he that puts these words in his Brother's mouth——*Nam illud mihi ipsi celeriter nuntiatum est, ut audivisses in monumento Marii de tuo reditu magnificentissimum*

illud S. C. &c.) Though I am far from thinking such instances impossible. But should he not have said something in order to have accounted for this wonderful circumstance of it? He gives us a very singular instance from his own experience, that a thing was foretold to him in his sleep, which came to pass as it had been foretold; and upon reflection owns *That nothing could be more a proof of something divine*: and yet after all says *there was nothing more in it than that he was thinking on a certain person the day before*. Was that enough to give this person a prophetic virtue? Or to endue his own soul with a prophetic virtue? Which soever of the two he says, provided he relates his own dream fairly, there seems to be no less a cause concerned in it, than that I contend for. If a man's own spirit is sometimes enabled to foresee things to come, I do not see how it can be affirmed to be the cause of such a vision; supposing it produced all the rest. And if it cannot produce such a vision when the event follows; why should it produce the same, or a like vision, though the event should not follow. The event's following or its not following, hath no connexion with the physical cause of the vision; which therefore should be the same in both cases. I am sure the assigning any less cause, than I have mentioned, infers that which would utterly confound all knowledge, and put an end to all future enquiry; viz. That the effect may be every way more perfect than the cause that produced it; of which I have said enough before. He says, *many dreams are not monitory*; this indeed is, I think, as it should be, the cause of them being considered; and *that in a long life he had only this one dream*——*Mibi quidem præter hoc Marianum, nihil sanè quod meminerim. Frustra igitur consumptæ tot annos tam longâ in ætate. Ibid.*——What follows? Can a thing that only happens once, be without a cause? or without an adequate cause? He says of *Democritus*, upon his accounting for our dreams by *simulacra* (of which below) *Nec cognovi quemquam qui majori auctoritate nihil diceret. Ibid.* Others will determine how far this is applicable to himself; but of what he says of his only having had this one dream be true; *Plutarch* in his life, and *Suetonius* in that of *Augustus*, makes him contrive a refined piece of flattery to make his court to *Julius Cæsar*, in telling a fictitious dream of his own concerning *Augustus*, then but a young unknown stripling.——*M. Cicero C. Cæsarem in Capitolium profecutus, somnium pristinae noctis familiaribus forte narrabat: puerum facie liberali demissum caelo, &c. Sueton. in August. cap. 94. Plutarch* tells this dream still more circumstantially, with the consequences that followed upon it. But  
whether

whether *Cicero* had really forgot this remarkable dream; or dissembles it now, in his dispute; or whether these *Writers* unjustly father it upon him, I cannot say: But it is certain these Books *de Divinatione* were written after the death of *Julius Caesar*; that is, after the time he is said to have had this *strange dream* concerning *Augustus*.

XVII. There is another argument I mentioned before, against this notion that the soul contrives, and presents to itself all those things we think we hear, and see done in dreams; to wit, *That it could not impose on itself by this method.* This I shall explain a little, and shew a farther reason why it is impossible: which is, That in the instance above, and others of the like nature, it is necessary that the person's soul who dreams, (if it contrived and presented all to itself) should still be busy in forming and producing the parts of the vision all along as they succeed to each other: just as a man, when he contrives a fable extempore, has his invention at work all the while, which certainly must hinder him from taking it for a true narration told by another, in which he has no other share but giving attention to what he hears, or beholding what is done in his presence. In short, it would not be enough for the soul to make the disposition in the beginning of the representation, and order once for all, such and such a scene, which should afterwards come in view successively, and of itself. It is a childish inattention to make such a supposition: the soul must all along form the transient and successive parts of the representation; as when a man repeats a speech, he must repeat it to the last word; or if he mimicks another man's action, he must personate him to the last gesture. It is therefore neither to be supposed, that the soul should forget this its own constant action, which must continue all the time of the dream; nor that it could impose on itself, while thus constantly employed: and much less could it terrify itself in good earnest, as at the presence of real danger. — *Méque contremisise* (says *Quintus*) *timore perterritum.* —

Would it not be a strange fancy, that a Poet might contrive a *Drama*, which should have a spontaneous power to exhibit itself in order, while he were ignorant of the whole contrivance, and imagined he had no other hand in it but as an idle spectator? This seems to be big with contradiction. And yet in effect the objection contains in it a no less absurd supposition. For if the soul by one simple act of the will, should produce a series of successive action; the things seen and heard would be what we might call *automata*, or have life and spontaneity of themselves. So necessary is it to admit of a living active principle here, that while we deny it,



it, we are forced to suppose things lifeless and inanimate, to have spontaneity and life. This is remarkably verified in *Lucretius's* account of dreams to be examined hereafter. And if we say that the soul itself continues to invent and contrive the parts of the vision, as they constantly succeed each other; it is impossible it should not be conscious of this its constant invention; or forget it, as if it were but *one transient act*. There is not a more painful act of the mind than *invention*, even while we are awake; as a late ingenious Author hath well observed: and it is certain that sleep *binders* and *deadens* the active power of the soul. Therefore, if it be a contradiction that the soul should exert this painful and laborious operation, while we are awake, and yet know nothing of it: it must be more impossible that it should perform this in sleep, with such ease, as to take all for the work of another being, as the same Writer supposes [*Spectator* 487.] This is to make a prodigious wide leap in reasoning, from one extreme to another; first to own the difficulty, and then to assert the great facility, though in more disadvantageous circumstances.

XVIII. There is still another circumstance which plainly shews, that the soul cannot contrive those things for itself which we see and hear in dreams; *viz.* That it could not impose on itself as a *reality* then, what must appear an *impossibility* to it at all other times: and this is a quality attending many representations offered to the soul in sleep. It is in this respect our dreams are said to be *chimerical* and wild. And if this observation be just; *the very inconsistency and wildness of our dreams agrees least with the supposition made in the objection.* *Alexander the Great* had a very remarkable dream of this kind, when his friend *Ptolemy* was wounded with a poisoned dart; namely, That a serpent came to him with a root, or herb in its mouth; and told him where the herb might be found, what its virtues were, and that it would save the life of his friend, &c. as is related by most Historians in the life of that Prince. *Cicero* himself, in the place beforementioned, takes notice of this dream, and allows it might have been such as narrated, (which is strange enough, for I am sure it by no means agrees with his solution) and wonders that his brother *Quintus* did not urge such a *singular instance*. Now it would shock us to hear at any other time, and while we are awake, that a serpent should speak, and that too while it held a root in its mouth. *Cicero* takes notice of this very *impossibility*, and yet owns that it might have appeared a *reality* to *Alexander*. But how could it, if *Alexander's* soul invented this absurd fancy

fancy to itself? Any one who considers will never affirm it. It is plain *Alexander's* soul must have coupled together these ideas, by the same power of imagination that a painter employs, when he paints a *Harpy*, or a *Centaur*: and therefore he could no more have been persuaded that this was a real serpent speaking to him, than a painter could think in good earnest, that the picture he had drawn was a living creature. I do not mention here the importance of what the serpent told *Alexander*, (let those who give the narration answer for that;) but insist only upon the circumstance that a serpent should appear to speak to us in a dream, which certainly is no very incredible thing. *Cicero* thinks he has accounted well enough for this when he says, *Non enim audivit ille draconem loquentem, sed visus est audire, & quidem quod majus sit, cum radicem ore teneret, locutus est*; and adds, *Sed nihil est magnum somnianti*. But was it not enough that the serpent seemed really to speak, though it did not really speak? There is no difference between *visus est audire* and *audivit*, as to the reality of the perception; as every one will allow. And that being so, the difficulty I insist upon is obvious: for the soul really perceives in dreams what must appear impossible to it at all other times. And this itself would be impossible, if the soul formed such chimæra's to itself by its own power. When he adds, *Sed nihil est magnum somnianti*, it is, I think, as if he had said, "But after all, the objects seen in dreams are so strange, that there is no accounting for them this way." Or it is tacitly owning that the solution doth not remove the difficulty of the thing pretended to be accounted for; as if I should say, It is very common to see things in dreams, which are above the energy of the soul itself, or the powers of motion and matter; for, *nihil est magnum somnianti*.

XIX. I shall leave *Cicero's* account of dreams, after observing that the motive, which seemed to hinder him from owning that separate, intelligent Beings excited our visions in sleep, and which is still a motive with most men, is not justifiable in good philosophy; it is this, That men would grow idly and foolishly superstitious, and fearful of superior powers. He says, speaking still of that dream about *Marius*, *Omnium somniorum, Quinte, una ratio est, quæ, per deos immortales, videamus ne nostrâ superstitione & depravatione superetur*. What! *Omnium somniorum*? This beseeching, without offering reasons for what he maintains, looks like begging. That men would not argue from such instances as he owns to have happened to himself, for fear of certain consequences; That they would not be too

difficult

difficult to be persuaded, but *wink*, and turn away their eyes at proper places. To search after, or find out the true cause of any natural appearance, needs make no man superstitious, or fearful of superior powers, who hath no other reason to be afraid: and if I have another reason to be afraid, what will it avail me to turn Sceptick with respect to the existence of separate, invisible Beings? If this conclude any thing, it concludes that I should turn Atheist altogether. And I find this Author saying elsewhere: *Quis enim potest, cum existimet à Deo se curari, non & dies & noctis Divinum Numen horrere? Et, si quid adversi acciderit (quod cui non accidit?) extimescere, ne id jure evenerit.* Academic. Quæst. lib. 4. Thus we see this guilty fear drives men to hate that, which should be the only comfort of all *reasonable creatures*; to wit, that a Deity of infinite reason and perfection should govern the world. And one might carry this unpleasing remark still higher. For Cicero says in the words immediately before, that Strato relieved him from *much terror*, when he taught that God neither made, nor took care of the world; but that *surd matter did all that was done*. It is true, a little after he endeavours to bring himself off, by the great academical principle, saying, "he neither assented to Strato, who denied a God; nor to Lucullus, who asserted one." But this seems somewhat contradictory to his being relieved of his fears. In short, nothing should influence our searches after truth, but the love of truth itself. *Truth can have no ill consequences, but by our own fault*; which, methinks, should take off the argument against searching out an adequate cause of the present phenomenon of dreams, from a fear lest superstition should prevail: since that can be no argument in *reason*, whatever it may be in *policy*, or on some other consideration. If we are not to enquire whether there be a variety of immaterial separate Beings in God's creation, as there is of organized bodies in the material world, lest some men should turn fanciful and superstitious; by a parity of reason, we are not to enquire whether a Being of infinite reason manages the Universe, lest unreasonable men should hate him, as being against their interests; as Cicero allows they will. "Men would be easier, (says a certain great Author) if they were assured that they had only *mere chance* to trust to." And again, "No body trembles to think there should be no God, but rather that there should be one." But I hope he is mistaken: and I am sure *they* apostatize from the interests of reason, and a rational nature, who had rather trust to *blind chance*, than an *infinitely wise, perfect, and reasonable Being*, or tremble at the thoughts that there should be such a Being. Only the malice of an infinitely



evil Being could rejoice that there were no such thing as an infinitely good one, or that infinite reason should be cut off from nature. Finally, if *superstition* is such a *dreadful evil*, the best way to guard against it is, to *search things to the bottom*, and find out their *causes* impartially; and thence to estimate the grounds of *hope* and *fear*. And, after all, it doth not appear that *chance* and *atoms*, that is, *dead matter* and *unguided motion* is such a firm principle of security, as to find out from the principles of reason that *an infinite intelligence guides the affairs of the world*. And if an infinite intelligence guides the affairs of the world, we need not then be afraid, what, or how many creatures the world may contain.

XX. If it were material, it might be observed here, that *Cicero*, in his second Book *de Legibus*, contradicts all that he had advanced in his Treatise *de Divinatione*; though he hath spoke better sense in it upon every other particular than that of our dreams. But he saw, and was convinced, that men would make better members of society, if they were religious, than if they were Academicks. As Philosophers he teaches men to be Scepticks, or to maintain *that truth is not to be perceived*: forgetting, or at least overlooking the inconsistency of teaching them, what, by consequence, he allows is against the interests of society: for certainly *practical truths* are incontestable. If it were possible that speculative and practical principles could be opposite, I should by all means close with the latter; but it is impossible they should be opposite; for *all truth* is consistent with itself, as proceeding from the same infinite mind, where undoubtedly it is consistent. But it is long since it hath been observed of this *great Man*, that his *academical Writings* are at variance with his other works; and that he may be confuted out of himself, and in his own words.

XXI. Thus I hope *this principle*, that the visions, or *φαντάσματα*, offered to the soul in dreams, are not the work of the soul itself, is firmly established; and that the objection which supposes the contrary cannot be urged a second time. I endeavoured also in N<sup>o</sup> 7. to lay down another previous principle; to wit, That the scenes presented to the soul in sleep, in which there is so much *variety*, *action* and *life*, nay oftentimes *speech* and *reason*, cannot be the effect of mechanism, or any cause working mechanically. This still appears to me self-evident: But an exception hath been made to it, and an hypothesis offered, in order to account for

for dreams *mechanically*, [as I think.] This I shall also consider, and endeavour to point out the several particulars which seem to render it inconclusive. It is said, "Though history and reason make it highly probable, that in some cases separate spirits act on the souls of men in dreams, and at other times; yet it seems more reasonable to explain the common phænomena from the union of the soul and body, and the necessary connexion thence arising between ideas in the mind and certain motions in the body, or in those parts more immediately united to the soul: That this indeed will not make dreams more mechanical than the other actions of external objects, or rather, than the motions in the sensory on the soul; but it makes them all proceed from one principle or law: That though there seems to be a difficulty in accounting for a train of reasoning, which is very frequently in our dreams, from this general solution; yet if what some Philosophers have said of *traces* in the sensory, be true, and the relation that may be between them, when the ideas have a connexion which may make the animal spirits flow from the one to the other; a train of ideas which may excite in us what is equivalent to a discourse, may arise from it: That the confusion and incoherence of many, nay, most of our dreams, favours this account; the succession of ideas in our minds, when waking awake, is very near to this; and the phænomenon of memory may illustrate it."

XXII. This account is as specious as the hypothesis can admit of, and touches on every hint that may give it a remote degree of probability: But a wrong hypothesis will not bear close reasoning, nor an application to particular instances. Here it is owned, *that history and reason make it highly probable, that in some cases separate spirits act on the souls of men in dreams, and at other times.* So far I think is right. But if this is allowed, it will not follow that an hypothesis which gives a contrary account of the common instances, can make them all proceed from one principle or law, as is asserted of this. Thus, unless this *concession* is again retracted, there must be two very different hypotheses for the solution of this phænomenon; *separate spirits*, and *mechanism*: and I do not see that it can be retracted. And if there be any beauty, or philosophical simplicity, in assigning one cause for one kind of appearance; this hypothesis doth not reach that. In another case it was said, that *by reducing more phænomena to one principle, cause, or instrument, the beauty of nature*

*was set in a greater lustre.* But there remains a greater difficulty, if we allow two such different causes as *separate spirits*, and *mechanism*, to excite our dreams in sleep: For what shall we make the *criterion*, or mark of distinction between the effects of the *intelligent cause*, and of *mere mechanism*? May it not appear strange to advance such a solution, as that we cannot distinguish the *one of these* from the *other*? When *history* is mentioned as affording instances of the first kind; it seems such dreams as are followed by the event, are allowed to be exhibited by separate spirits. But if one should dream *that a person came and spoke to him*, and this really happened next day; and again, if he should dream *that a person came and spoke to him*, and no such thing happened: the first of these would be the work of *intelligence*, and the other of *mechanism*; and yet the effects are equal, or both the same. And it cannot be said that this supposition is absurd, or even improbable. We have often clearer, more significant dreams, and in which more reasoning is contained, on which nothing follows, than those are in which we see something that afterward comes to pass; as I believe is consistent with the experience of most men. Thus the work of mechanism, that is, of mere matter and motion, shall be more perfect than the work of intelligence and design. I ask, if this would not make strange work in philosophy? If one should say, *All clear, reasoning visions are the work of intelligence*, and *confused ones of mechanism*, or *traces in the sensory*; let him consider that the gradation, from clearness to confusion, is so imperceptible, that he will never be able to fix a limit this way. We allow an *immaterial Mover* to the meanest *insect* that has spontaneous motion; otherwise, the gradation is so imperceptible, we should not allow one even to man. The case is the same here, I think; every thing seen which the soul doth not produce, and which matter, or *signatures in it* (that is, *traces*) could not produce, should have an immaterial Mover, and this from the bare consideration of *spontaneity*. Hence *our dreams must be all mechanical, or all immechanical*. That they are all *mechanical*, no man will maintain; for mechanism might then have life, spontaneity and reason. And there is this farther reason why they should all be *immechanical*, which I mentioned before in that seventh paragraph, *viz. Philosophy doth not hinder us from assigning a cause that can do more than produce the effect; but strictly prohibits us to assign one that cannot do so much*: For assigning the latter would be to own the atheistical principle; which if it could be true in the least assignable instance, the Atheist would gain his point universally. I



with this were considered: If I were persuaded that the effect might have some perfection, that its cause could not communicate to it, no argument for the Being of a God would ever be able to convince me.

XXIII. It is farther to be observed, that the union of the soul to the body, which is insinuated here to be the cause of dreams, only renders them possible. If the soul, or percipient Being, were not united to, and present with the sensory, any impressions made, or motions excited there, could never be perceived: the sensory, by what was said in Sect. 2. being but dead matter. But still the *cause* that *makes* these impressions, or *excites* these motions, is wanting. There is certainly a connexion between such impressions made on the sensory, and certain ideas being excited in the soul: that is, such impressions made will excite such ideas and no other. But pray, what is that to the purpose? Because every impression hath a *fitness* to excite such an idea, it will not follow that the idea may be excited without the impression is made. The *fitness* therefore or *connexion* between the motion impressed, and the exciting such an idea, will never supply the cause that impresses the motion. This may be illustrated by a familiar comparison. When a bell hangs in an outer room, and a cord tied to it is conveyed to another place; it would not here follow that the bell could ring without a hand, because there was a *connexion* or *communication*, by means of the cord, between it and the next room. Just so, the *moving hand*, I think, is wanting in this solution: But, if that *cause* which moves the sensory be allowed, it accounts for all the rest. *Union* and *connexion* of themselves are no efficient causes, and will never answer for the origin of the motion. This *solution* is indeed a general explication, how, whatever affects the sensory excites some idea or other in the soul; whether *the thing*, acting on the sensory, be some *external object* while we are awake, or *some other cause* while we sleep: but it does not account for *that thing* itself, which so affects the sensory. Or, if *union* and *connexion* supersede the necessity of such a *cause* in our dreams; why may they not in our waking ideas? And then (as Dean *Berkley* contends) there may be no *external objects*.

XXIV. It is said, "this *solution* will not make dreams *more mechanical* than the other actions of external objects, or rather than the motions in the sensory on the soul." But I beg leave to observe that there is no parity, either in mechanism, or in any other respect, between the sensory (which

is

is but *dead matter*) representing innumerable *living scenes*, without the action of *external living objects*, and the external objects themselves acting on the sensory, and thus conveying notice to the soul. In the last case, the sensory is but the *medium of conveyance*, and in the first case it should be the *Agent*. This makes a wide difference. A word might have been dropt concerning the cause of the motions in the sensory. I have shewn good reasons against *self-moving matter*; and cannot allow it here. If the same motions were excited in the sensory, as would be if these words [Ὁ θεμιστοκλῆς, ὡς ἐπεὶ κεφαλῆς λέοντος, ἵνα μὴ λέοντι περιέσθῃ] (r) were pronounced while the person is awake; it is agreed on all hands, that the same ideas would be raised in the soul: but if these motions may exist in the sensory fortuitously, or without any adequate cause in dreams; then *any thing might do any thing*: or let it be shewn me where we can stop. If an *eccho* should repeat several words, which it never received, (pardon the impropriety) it would be no satisfactory account of this to say, It is the property of such and such figures, to reverberate the undulations of the air, so as to imitate articulate words, and raise the same ideas as if the words were spoke by a living person. The great question here would be, How the *eccho*, whose known property it is to convey what it receives, could convey what it receives not. The case of words in dreaming is pretty near this. And I might argue the same way as to objects of sight. If a mirror represented images when their objects were not present; how far would it be from satisfaction to tell me, that it reflected the incident rays of light in such a manner, that all the rays proceeding from one point of the *object* concurred to form the like point of the *image*. For if no object were present, there would be no *incident rays* to be reflected: so in this case, if no object acted on the sensory, no motion could be excited in it, nor idea raised.

XXV. It may perhaps be supposed, that we might trust to the circulation of the blood, or the mechanical motion of some other fluid, for doing so much as to excite these motions in the sensory. This indeed is generally supposed the cause of these motions; but I may venture to say

(r) O Themistocles! take up thy quarters short of the Lion's-head; lest thou fall really among lions. *Plutarch. in Themist.*

that

that scarce any supposition can be more absurd. Let us first suppose these motions orderly; and, secondly, that they may be disordered. Now in the first case, no man is able to imagine that the same fluid, pursuing its own course mechanically, constantly, equally, should at this instant represent *nothing at all* by its motion; and in the twinkling of an eye, cause a *house, a field, a giant* to start up; and then a little after, things of quite a different nature. Who sees not that such a mechanical cause, if it represents things at all, *must always represent the same things*, or nearly the same; with an *even, uninterrupted tenor*; without such *long pauses*, or *monstrous transitions* to things of opposite and contrary natures? When this is thoroughly considered, no man is able, I say, let him do what he can, to imagine it possible. Every transition must have its *determining cause*, according to all the laws of reasoning; and the wider the transition is, and the more opposite the natures of the things joined are; the farther will this appear from being the effect of a *necessary mechanical cause* to any rational Enquirer. We propose to ourselves a *frugality of causes* in the works of nature, which philosophy doth by no means countenance. *Borelli* hath shewn that nature makes use of prodigious motive power to move small weights. No change is produced in the state of matter without a *living agent*. The motion of the smallest reptile requires the power of the *First Cause*. Only here matter may change its own state, and do wonders beside! One may say indeed *that the single principle of gravitation performs all the various phenomena in the material world*. But how, I pray, doth it this? Is it not by the various, constant, universal impulse of the God of nature?

Let us in the next place imagine that the motions of the fluids in the body are disordered, and thence that the motion of the animal spirits, or of any other matter we please to fancy in the body, is likewise disordered. How much is this able to perform? If *order* can do nothing, *disorder* can do less. In a regular motion of the fluids (or of any other particles of matter which they may be supposed to move) the scenes of vision should go on regularly, mechanically, constantly; and such images only should be represented whose *traces* were still in the brain, and most patent there. Now in the disordered motion of these fluids the scenes exhibited should still be *the same scenes*, but only broken and disordered. This is a just inference; yet it is far from being the case. Could the disorder of inert particles of matter, make them jump into the regular formation of something they could never otherwise have represented,



represented, so as to imitate *action, life, and even reason*. This would in effect be *Epicurus's dance of atoms*! We might as well suppose that the small particles of dust, which are carried about by the motion of the air in a sun-beam, should form of themselves the figure of a man, with life and action; as that the animal spirits, tossed either by the regular or irregular motion of a fluid, moving along its own channel, should perform such an effect. Let us remember that animal spirits, according to all the notion we have of them, are only very small particles of matter which are the immediate instruments of the will, when the soul would excite motion in any part of the body; but here they are supposed to *act of themselves* independently on the will, and contrary to it: and certainly, if they are matter at all, this is a contradictory supposition; and if they are not matter, they are *spirits* in a literal sense. It is insinuated that, *if the traces in the sensory have a relation* (which is when the ideas have a connexion) this may make the animal spirits flow from the one to the other of these traces. But I ask, *where, or how far* one can suppose them to flow? For *words, actions, persons*, that never were heard or seen before, can have no *traces* in the sensory. Why should ideas be joined that were never joined in nature? Or why should ideas be disjoined, which have been always before presented together? If I never saw a person but once, and that *on horseback, or sitting in his night-gown*; I must always think on him while awake, as in that posture, or that dress. In short, if it should be said, that the reason why the animal spirits flow from one of these traces to another, is *because they are not related, or really not existent at all*; it would be every whit as true! We take things in the gross, and satisfy ourselves with a distant hint; but when exactly viewed, the whole scheme proves contradictory to experience.

XXVI. It is said, "what is equivalent to a discourse, or reasoning, may arise from the flowing of the animal spirits into these traces." But I refer to the common sense of all men, if this were the case, whether the discourse, or reasoning in the dream, should not be the same with what we had heard, or some time or other held, in our waking thoughts: or whether it is not certain, that we sometimes hear discourses, and see persons in dreams, which we never heard, and whom we never saw before. And since this cannot be denied, how shall we account for this discourse and reasoning from *mechanical motion, particles of sluggish matter, and traces or signatures* on a material organ? The attempt seems desperate; and we might as well

well undertake to account for the formation of a world, from *atoms* and *chance*. *Reason* is the greatest perfection we can have any notion of; and a *reasoning Being* is one of the highest effects Infinite Power can produce. For it is one thing to make an effect according to reason; and quite another, to make *such an effect* as shall be itself a *reasoning Being*. And can matter and motion (that is, inert particles, moved mechanically) rise to this perfection? And no living Being (neither the *soul itself*, nor *separate Spirits*, nor *the Deity*) is supposed here to interfere. We may perhaps think a sentence spoken in a dream a contemptible phenomenon. But what a compass of ideas must even a single sentence *include, refer to, or shew the Being to be possessed of*? If a person can answer *but one* question pertinently, we immediately own that he is a *thinking reasoning Being*. And could animal spirits fall into their *proper order*, give themselves the due *impulse, direction, succession*, as to seem to say but thus much, *I am, O Brutus! thy evil Genius: but thou shalt see me again at Philippi*? And thus much I am sure hath been spoken to us in a dream; whether *these words* were ever spoken or not. And if thus much had been but once spoken, it would shew that more might have been spoken. And in truth how much more is spoken to us every night? These particles of matter called *animal spirits* are indefinitely small, and incredible numbers of them must concur to produce such an effect; and every one of the particulars I just now mentioned is to be *determined*; viz. their *number, order, succession*, as to time, *impulse, and direction*; without any of which the effect could not be produced: and there is nothing in the supposition to *determine* these several particulars but dead matter. Whence I conclude, unless the reasoning in the first and second Sections above is wrong, this hypothesis is demonstratively false.

XXVII. If this hypothesis were true, our dreams would have quite other circumstances and qualifications than they have. The several differences I shall here mark. First, there would be always a connexion or relation between the ideas excited in the mind in dreams; and such a connexion, and cause of transition from the one to the other, as there is while we are awake: for the ideas having been joined together while we are awake, is supposed the cause why the one should excite the other while we are asleep. But commonly there is no such connexion, and the transition is so *wild and arbitrary*, as surprises, and leaves us quite in the dark, how it could come about. 2. No new object could be thus offered to the soul, but such as had some time before occupied our waking thoughts. And yet in every instance it is otherwise. 3. All our dreams then ought to

be according to nature, and the real existence of things from without. And yet they are *never* thus qualified; but *persons, places, circumstances*, are quite changed. 4. The strongest ideas, and those that have been most in our thoughts of late, should always be offered to us in our dreams: for the traces of those are deepest, and most patent in the sensory. 5. The mind could never be surprised with these familiar ideas, which have been often before coupled together: and much less could it be terrified with them. 6. But chiefly there should be no diversity, or distinction of consciousness in our dreams, as when many persons seem to act their respective parts. How could *the awakening these traces* hold conference with us; ask questions of us, and not only *personate* our acquaintance, but *strangers* also? For these traces, like a train when kindled, should run on mechanically in their own course; and not stop at proper places, and wait for a return. This is a prodigious difference, if we consider it right. It is as if I should suppose that the words of a book (which I may call traces in it) should extemporarily change themselves from the subject treated of, and become *question* and *answer*, according to whatever I should say. Lastly, if ideas excited other connected ideas, and *one trace* awakened another, according as they were related; *what should binder us from being quite awake?* At least this *exciting* and *awakening* should go quite round, as far as there were traces thus related. And yet we see *new* and *foreign* ideas excited, while the traces of waking ideas are kept close sealed up. A man dreams that he is in new circumstances, every night; though he should necessarily dream, according to these traces, that he is in the circumstances, in which he really is; for the traces of these are without all doubt most strongly connected in the sensory. Thus experience directly contradicts this whole affair of exciting ideas by connexion in our dreams. If this hypothesis had been applied to any one instance, where a person seems to discourse with us in our sleep, it would have appeared how insufficient it was. Let it be tried by the example of *Marius* or *Alexander* above, (N<sup>o</sup> 13 and 18.) It is easy to make hypotheses that perform nothing.

XXVIII. The confusion and incoherence of most of our dreams, rather *disproves*, than favours this account; for as on the one hand, they could not have the *life, action, and design*, we observe in some of them; so neither on the other, could they have that extreme and monstrous opposition of ideas, observed in others of them. There would always be a relation and connexion between those ideas, according as they had been joined together while we were awake; since this connexion is made the



*formal cause* of their being stirred up. The animal spirits are but inert particles of matter, that have no spontaneity of their own, to join *extremes*, and pass over *intermediate traces*. Our memory, so far as we are active, no way illustrates this solution: for here the soul is passive in all that is offered to it. When one *musés*, the soul moves its attention gradually from one object, or one idea, to another; but still with consciousness that it doth so, and according to the connexions which have been formerly made between them. There is no hurrying from one thing to another, without coherence or relation. Whence this particular illustrates the incoherence of our dreams as little. Men are not passive in *memory*, or in *musings*, but with respect to the first idea brought in view, by some external cause: in all the rest of the train, the soul is active more or less. In brutes it is otherwise. If memory could illustrate this account, or if the ideas were excited in our dreams according as they were connected at other times; then, as I have already observed, *being asleep* would very little differ from *being awake*, as to the state of our thoughts: for our waking ideas would all come in view, according to the order and clearness of these connexions. This account therefore answers neither for incoherent, nor any other sort of dreams. For upon this supposition a man could never have wilder dreams than his waking thoughts, or his traces could furnish him with: yet in some cases, all is enchanted and preternatural; the soul is suddenly thrown into wild and uncouth circumstances; objects are metamorphosed under the eye, which no traces in the sensory, by being awakened, could ever effect. It seems to be in the hands of a powerful Magician, who creates strange sights, and inverts nature at pleasure. This particular hath not yet been attended to: but whoever pleases to consider the whole *Appearance* at leisure, will see that the very *wildness* and *extravagancy* of our dreams, as little agrees with a mechanical cause, as the *coherent* and *rational* part of them. If this had been observed, mechanical solutions would never have been offered. And if the rational part is not the work of the soul itself, nor *the very wildest part* the work of mechanism; where shall we find *a cause for this effect*? For undoubtedly it must have some cause. If a man assigns any other cause, than what I have assigned above; there are such instances at hand, as immediately shew the impossibility of what he asserts.

XXIX. I have been the more particular in answering these two objections, as the answers to them establish the two *principles* I had previously

laid down in N<sup>o</sup> 6 and 7 ; and that men may see what it is they advance, when they assign at random these causes of our sleeping visions. And since all the other hypotheses for the solution of this phænomenon of dreaming, are reducible to these two ; the conclusion in N<sup>o</sup> 11. is rendered, I presume, unexceptionable. However, that the strength of the conclusion may the better appear, I shall bring it out in another method, and by a very short and clear argument ; which is this : The appearances offered to the soul in dreams, all *idle, trifling, incoherent, absurd*, as they are, must either be the work of *separate living Agents*, or the immediate effects of the *God of nature*. This may surprise : yet there is no medium. For first, *chance* can do nothing in God's world. And *secondly*, whatever is performed by *mechanism*, is done with design ; since matter can neither move itself, nor alter its direction, nor effect the least variation from the end proposed. *Thirdly*, no mechanism is spontaneous, or the work of *the soul* itself. *Fourthly*, God is the sole Mover in all mechanical motions, especially in the animal body. Therefore, whatever possible way dreams are produced, if the agency of separate spirits be refused, we must ascribe them to the immediate power of the Deity. Let this be considered ; which, as I take it, is demonstrative, and adds a new force to all that has been said : and those who reflect on what was shewn, Sect. 1 and 2. will not contest it, as being a fair consequence of the *inertia* of matter, and of the universal influence of the *first Mover* upon it.

And this conclusion is not affectation in me ; for I am not able to avoid it : nor will any other man who thinks accurately, be able to avoid it. The only way to avoid this conclusion, would be, either to incur universal Scepticism, mentioned in N<sup>o</sup> 12. by losing *the sense* of our own consciousness, or *the distinction* between our own consciousness, and that of any other Being ; or else to incur direct Atheism, by allowing that *dead matter*, and *unguided motion*, may not only perform the effects of reason, but be itself a reasoning thing ; or thirdly, to think nothing at all about it. The last of these it is very hard to do ; and a reasonable man will never do either of the two first. Therefore I shall not dwell long upon the little cavils that may be raised. The supposed absurdities may lie more in our prejudices, than in the nature of the things themselves. Objections indeed from reason and philosophy ought always to be listened to ; and for such I shall always preserve a due regard, and either answer or submit to the force of them when urged against me : but *prejudices* are only prejudices ; and the history of Philosophy acquaints us, that

many points have been reckoned *absurd, heretical, damnable*, which yet the strength of their own evidence has afterwards made popular, and caused to be universally received. However, some of the more common prejudices it may be proper afterwards to take notice of, so far as to shew how they may be removed, by what hath been already said.

XXX. Nor is this conclusion *new*; the *constancy* and *universality* of the appearance, seems designed to remind us of it *at all times*; and accordingly men in the earliest ages, long before *Atheism* was broached, or learning thought to consist in *doubting*, generally agreed in it, as a truth pointed out to them by nature herself. And ever since we have had any records of history, or writings of any kind, it hath been admitted by the wisest men. *Homer*, the first and chief writer of that sort, to preserve probability, in bringing about and celebrating the revenge of *Achilles* on the *Greeks*, makes the *pernicious dream* to be sent by *Jupiter* to *Agamemnon*, to persuade him to draw them out again to battle (s). *Achilles* says, that *dreams come down from Jupiter*: and that possibly the reason why the pestilence was sent into the *Grecian* camp, might have been discovered to some in a vision. And *Agamemnon* tells the *Chiefs* convened in council, that *the divine dream came down to him, through the ambrosial night* (t). This shews that it was then both the learned and popular opinion. Hence the *Poets* generally, whose aim it is to follow nature, when they have any great incident to prepare, or some strange event, to bring about a *dignus vindice nodus*, as *Horace* calls it, often make use of the agency of spirits in dreams, as the surest way to preserve the imitation they propose (u). *Ovid*, in his way, accounts for the strangeness of dreams, by making three cunning Deities the cause of three different kinds of objects offered to the fancy in sleep; *one* that represented men, and could act rationally; *another* that imitated brute creatures; and a *third* that put on the forms of inanimate things (v). And indeed, bating the poetical

(s) ——— Ἀρίστη φάνητο βουλῇ,

Πύμψαι, ἐπ' Ἀτρείδῃ Ἀγαμέμνονι εὖλον ὄνειρον. *Iliad.* 2.

(t) Ἀλλ' ἄγε δὴ τινα μᾶντιν. ——— *Iliad.* 1. and Κλύτῃ, φίλοι, Θιός μοι ——— *Il.* 2.

(u) To pass over a thousand instances of this kind, even the severest will pardon my mentioning that in *Shakespeare's Macbeth*, where the Lady in her sleep endeavours to wash off the *stain* of the King's blood from her hands, which it is impossible to read, without a dreadful expectation of the future catastrophe, and a horror of the cruel murder.

(v) *At pater \* è populo natorum mille fuerum*

*Excitat artificem, simulatoremque figuræ*

*Morphea. Non illo jussos solertiùs alter*

\* *Somnus.*



poetical dress and names, and assigning a certain number (though in the same place, he seems to allow an indefinite number [*mille*] of such spirits), there can be nothing more true and philosophical, than this account of the cause of dreams. For here it happens that *that* which is easiest to be conceived, and is most entertaining to the imagination, is the only consistent cause that can be given. *Atbeism* is equally unentertaining to the fancy, and to the rational faculty; disagreeable to our nature in every respect; beginning and ending in *universal deadness*; a world of brute matter, tossed about by chance, without a governing mind, and living immaterial Beings in it, affords a lonely unpleasant prospect to the soul. If things were thus, we should want scope for the imagination, and even for rational enquiry; and must soon come to empty chance, or unsupported necessity, which extinguishes ideas, and puts an end to all pursuit. How much more agreeable is it, to be led by all that we see here, to an infinite Reason, than to have this dark and gloomy prospect of nature! Undoubtedly, unless infinite perfection imply a contradiction, it must be necessary, because it is best (x).

XXXI. Moral philosophers, whose business it was not to search out the causes of things, but to teach *how to act*, especially the eastern philosophers, took it so much for granted that the transactions which are carried on with us in our sleep, were to be ascribed only to the efficiency of separate spirits, that they gained both *authority* and *probability* to their doctrine, by delivering it under the form of *vision* or *dream*, wherewith they were prompted by some friendly intelligence (y). Again, in the

*Exprimit incessus, vultumque, modumque loquendi.  
Adjicit & vestes, & consuetissima cuique  
Verba. Sed hic solos homines imitatur. At alter  
Fit fera, fit volucris, fit longo corpore serpens.  
Hunc Icclen superi, mortale Phobetora vulgus  
Nominat. Est etiam diversæ tertius artis  
Phantasos. Ille in humum, saxumque, undamque, trahimque,  
Quæque vacant animâ feliciter omnia transit.  
Regibus hi, ducibusque, suos ostendere vultus  
Nocte solent: populos alii plebemque pererrant.*

Metamorph. lib. 4. ver. 633.

The fourest Philosopher must admire this description, and *Morpheus's* part.

(x) See the reasoning, N° 25. Sect. 2.

(y) Every one will call to mind here the excellent pieces, done in imitation of this manner of writing, by the late Mr. Addison.

most

most learned, politest nations of *Asia*, we find that interpreting of dreams was accounted a part of wisdom and philosophy, and that these men were in great esteem in the courts of Kings (z). Now I shall allow (though perhaps I need not, for even natural reason tells us, that the same Being who designs a warning to any person, may enable another man to understand and explain it, and not him to whom it was sent; thereby bringing it about, that the last shall regard, and be directed by the first.) I shall allow, I say, that this art might be but a bold pretence, founded in wrong principles, and that the pretenders to it never spoke but by guess: but what I would have to be observed is, Whether or no men, from their own experience, in seeing in their sleep what really came to pass afterward, were not first brought into an opinion, that some superior Being sent these friendly warnings; and that clear and extraordinary visions had a significancy in them; and thereby first made this an art, and encouraged these bold pretenders to impose upon them? I am afraid, if we do not grant thus much, we shall not only deny the faith of history, but contradict experience. And this shews, that the conclusion here drawn seemed to be a principle generally agreed upon in the world, and in the earliest times. And it is hard to think how it could be otherwise; men always dreamed, and some men would reflect upon them. It is also farther to be observed with respect to those very Interpreters, that though they seemed to be the first favourites, yet their post was not very desirable; for if they happened to mistake in some great matters, it was at the peril of their lives (a). So that it would seem they were sometimes in the right.

(z) Of this kind were the μάγοι ονειροπόλοι in the court of *Astyages* king of the *Medes*, who interpreted his two dreams to him, concerning his daughter *Mandane*, the mother of *Cyrus*. *Herodot.* lib. 1. cap. 107, 108. They were in great honour and esteem with him, as appears by their speaking to him thus, —Σέο δ' ἐπειγὼτος βασιλῆος, ἰόντος πολιτίω, καὶ ἀρχομένου τῶν πραγμάτων, καὶ τιμῶν πρὸς σέο μεγάλως ἔχομεν· οὕτω δὲ πάντως ἡμῶν σέο τι, καὶ τῆς σῆς ἀρχῆς προσημαίνει. — cap. 120. And according to this Author, they interpreted both these dreams rightly.

(a) The same *Magi*, because they could not distinguish between a mock-monarch and a real one; but advised *Astyages* to send home *Cyrus* in safety to his parents, the danger being past, he having exercised his kingdom among the children in the cottages; were afterwards put to death, when *Astyages* heard that *Cyrus* was preparing an expedition against the *Medes*. —  
καὶ οὕτω μὲν τῶν μάγων τοὺς ονειροπόλους, οἳ μὴν ἀνέγνωσαν μετῴμαι τὸν Κύρον, τεύχους ἀνισκολλήσεσθαι  
128.

XXXII. I shall farther observe, that long after *Atheism* had been broached, and the licentious wits of *Greece* had set themselves to refine on that new scheme; *Plutarch* thinks that in good philosophy, we must have recourse to the principle of separate spirits, to account for these appearances, from the two instances only of *Brutus* and *Dion*, mentioned above. The place is remarkable; therefore I shall quote it. He had been speaking of the common arguments against this principle, that women and children, and other people, were only liable to superstitious fancies; and adds, "But if *Dion* and *Brutus*, men of great solidity, and philosophers, neither weak, nor credulous, were so affected with these visions, as seriously to relate them, and consult their friends upon them, I am afraid we must return to the opinion of the old philosophers [τῶν παλαιῶν], and own that there are bad spirits, who envy good men, and endeavour to stumble them, lest going on in the ways of virtue, they should enjoy a happier lot after death than themselves (b)." These are the words of *Plutarch* of *Cheronea*, and purely in point of philosophy. Sure they are not women nor children only, who have such visions in their sleep. Thus much of the antiquity of this opinion; not that any body denies it, but to remind men of the reason of its being so ancient. We may next consider the remaining objections against it.

XXXIII. There are persons who say they never dream; and some Authors give us accounts of such. *Suetonius* tells us, that *Nero* never used to dream, till a little before his death he began to be terrified with portentous visions in his sleep (c). *Aristotle* says, some men never dream in their

(b) Ἐπεὶ δὲ Δίων καὶ Βρούτος, ἄνδρες ἰμβριδοῦς καὶ φιλόσοφοι, καὶ πρὸς οὐδὲν ἀκροσφαλιεὶς οὐδὲν ἐνάλωτοι πάθος, οὕτως ὑπὸ φάσματος διττίθησαν, ὥς καὶ φράσαι, πρὸς ἑτέρους, οὐκ εἶδεν μὴ τῶν παλαιοῦν τὸν αἰσιματώτατον ἀναγκασθῶμεν προσδέχασθαι λόγον, ὡς τὰ φῶλα δαιμόνια καὶ βασκανα, προσφθοροῦντα τοῖς ἀγαθοῖς ἀνθρώποις, καὶ τοῖς πράξεσιν ἰνιστάμενα, ταραχὰς καὶ φόβους ἐπάγῃ, σπινθῆρας καὶ σφάλματα τῇ ἀρετῇ· ὡς μὴ διαμύνοντες αὐτῶν ἐν τῷ καλῷ, καὶ ἀκέραιον, βελτίονος ἐκείνων μίμης μετὰ τὴν τελευτὴν τύχασιν. *Plutarch*. in *Dion*. As if he had said—I do not see but we must admit that opinion of the oldest Philosophers, which is yet more wonderful; not only concerning the simple existence of such Beings; but that a wicked and envious species of those Demons, envying good men, &c. The pregnancy of the instance seems to extort this supposition from *Plutarch*; which these new Writers should remember, who bring in his Authority to support the position, that *Atheism* is not near so great an evil as *superstition*.

(c) *Terrebatur ad hæc evidentibus portentis somniorum, nunquam antea somniare solitus.* *Sueton.* in *Neron*. cap. 96.

Some



their whole lives (*d*); and that young children do not dream; nor people come to years immediately after eating (*e*). Mr. *Locke*, in a place referred to above, tells us of one who was bred a scholar, and had no ill memory, who never dreamt in his life, till about the twenty fifth or twenty sixth year of his age, when he fell into a fever. If this be so, dreams that are not, need not be accounted for; and such persons will want that which gives the surest conviction in this case, namely, experience; and the reasoning above will be to them conditionally true only; that is, if there be

Some Writers go so far as to tell us of whole Nations that never dream. *Pomponius Mela*, speaking of certain people in *Africa*, says, *Ex his qui ultra deserta esse memorantur, Atlantes solum execrantur, & dum oritur, & dum occidit, ut ipsis agrisque pestiferum. Nomina singuli non habent: non vescuntur animalibus: neque illis in quiete qualia ceteris mortalibus visere datur. De Sit. Orb. lib. 1. cap. 8.* But the certainty of this is put upon *hear-say* only; and we may judge what credit it deserves, from other relations in the same place, where he tells us of some Nations who are without heads, and have their faces in their breasts, &c. *Blemmyis capita absunt: vultus in pectore est. Satyris, præter effigiem, nihil humani. Ægipannum, quæ celebratur ea forma est.* There is nothing that could make a human body monstrous, which is not related by Geographers and Travellers as real, in some part or other of the earth. Thus this Author goes no farther than *Germany*, or rather *Holland*, to find men who have feet like horses feet, and others who have their ears so large, that they wrap them about their bodies, instead of cloaths. — *Esse equinis pedibus Hippopodas, & Pantos, quibus magnæ aures, & ad ambiendum corpus omne patulæ, nudis alioqui pro veste sint, &c. lib. 3. cap. 6.* Upon which *Vossius* pleasantly enough says, “Since these ears served them for cloaths by day, for coverings by night, and for umbrellas in the heat, it is a wonder these Authors should not add, that the people made use of them as wings to fly withal.” This indeed would have compleated the prodigy. Not far from the *Atlantes* who never dream, *Mela* tells us of another Nation, who, it seems, dream very seriously. — *Ægilæ manes tantum Deos putant: per eos dejerant, eos ut oracula consulunt; precatique quæ volunt, ubi tumulis incubuere, pro responsis ferunt somnia.* And this appears more probable; for, as was said before, the Phænomenon of dreaming, (misunderstood indeed, and misapplied) seems to have given the first rise to *Superstition* and *Polytheism*. It is true, Voyages and Books of Travels tell us of several Nations, in different parts of the world, who have no sort of Religion, name, nor notion of any supreme Being: but if this be so, as Mr. *Locke* would have us believe, it seems the Inhabitants of these countries never dream. Since we can scarce conceive that this single phænomenon should not be enough to kindle up the notion of some Religion or other in the minds of men, though we could suppose all Religion once entirely lost in the world. However, the matter of fact itself begins now to appear false; and these monsters gradually vanish, as the Countries they were said to be in, are more resorted to, and become better known. Nature seems to be every where of a piece with herself. But this is not the place to speak more on this subject.

(*d*) Ἡδὲ δὲ τισὶν συμβαίνει, ὥστε μὴδὲν ἰσχυρὸν ἰσχυρῶς κατὰ τὸν βίον. De insomn. cap. 4.

(*e*) Διὸ καὶ μὴδὲ τῶν τροφῶν, καὶ πάντων τοῖς οὖσι οὐδὲν τοῖς παισὶν, οὐ γίνονται, ἰσχυρῶς. Ibid. cap. 2.

such appearances, they must be from such a cause. And thus far it must conclude, even to those. But the concurring testimony of all the rest of mankind, should weigh something with them over and above: for these instances are told but as rare (*f*). Perhaps some may affirm this, who do not take the trouble to reflect on the state of their mind while sleeping, because of their intenseness on their waking thoughts and business, or otherwise. *Aristotle*, in a place cited before, makes it a condition of the circumstance's appearing, εἰ τις προσέχει τὸν νῦν, ἢ περιῶτο μνημονεύειν ἀνασῶς; if he be attentive, and endeavour to recollect upon awaking. But that which chiefly invalidates their assertion, is, that it hath been shewn contradictory, in N° 23. Sect. 4. that they should be certain of what they affirm: we can have no memory, or experience of a state, which, by the nature of it, is a negation of all memory and experience. Some delirious persons, whether in fevers or otherwise, when they come to themselves again, remember nothing of what they said and did then: yet they were active and percipient all the while. It cannot be affirm'd to be impossible that some kind of dreams, or the dreams of some constitutions, may not be thus qualified. As to *Aristotle's* observation, *that after eating, &c.* I think it is contrary to experience; and the reason he assigns for it, should conclude just the contrary. For if the motions in the sensory, continued after the objects are gone, be the cause of dreaming, as he affirms (*g*); a frequency of that motion would make dreams indistinct, (which seems to be the case, and doth not contradict the solution here given) but could not occasion a not-dreaming. Lastly, those who think they say a great deal against this conclusion, by telling us they never dream, may please to observe, that their case agrees much better with the assertion, That our dreams are formed and represented to the soul, by an intelligent and free cause, than that they are mechanical, and necessarily produced. For then, dreaming must be caused by the mechanical motions of the animal economy, and therefore equable and constant according to that; or an effect

(*f*) *Aristotle* says, Σπάνιον μὲν τὸ τοιοῦτόν εἶναι, συμβαίνει δ' ὅμως. Loc. citat.

(*g*) The reason he assigns, why we do not dream then, is just the same that he assigns, why we dream at other times—Πολλὴ γὰρ ἡ κίνησις διὰ τὴν ἀπὸ τῆς τροφῆς διαμόρφωσιν: and yet these κινήσεις ἀπὸ τῶν αἰσθημάτων, are the only cause of dreaming. If a κίνησις is the cause, a πολλὴ κίνησις may cause a confusion, and not remembering, but cannot be the impediment. Besides, since *sensation* and *dreaming* have the same original according to him; why is not sensation, while awake, impeded after eating. But this is the least objection against *Aristotle's* mechanical dreams.

of some material action, in *Lucretius's* way; and therefore still mechanical and necessary; whereas if the exhibiting those scenes to us, depends on the will of free, intelligent Beings, and these again are subordinate to the government of a supreme over-ruling Being; it were easy to assign reasons, no way inconsistent, why this appearance should not be always after one uninterrupted tenor: or rather this last *cause* seems naturally to point out to us such a variation. We contract a habit of *forcing our reason to submit to our prejudices*: but let a man consider, as it were for the first time, this appearance; if any thing can less agree with the *surprising variety* of the scenes offered to the soul in sleep, than a mechanical cause; or with the *art and contrivance*, the *life and action*, nay the *ideas and reasoning*, contained in what we hear and see during that time, than a *dead and undesigned cause*: or rather if any thing can be more opposite. If a man speaks to us while we are awake, we conclude that he hath ideas in his mind; that he is free, reflects, reasons, methodizes: if something speaks to us while we sleep, what are we to conclude concerning it?—*Nero's* beginning to dream before his unhappy death only, makes more for one side of the present question, than his not dreaming all his life before (supposing the fact true) can make for the other. Reasons neither contradictory nor improbable, might be assigned for this: but such particularities are designedly avoided. Neither *chance*, nor *mechanism*, become more powerful before these *dreadful events*, than at other times. Who doth not admire *Virgil's* making *Dido* see those gloomy visions, in a like case, as something extremely natural?

XXXIV. On the other hand, there are men who tell such *improbable, romantick stories* of their dreams; out of a vanity we all have, as if remarkable things happened to ourselves beyond others; that even sober people, and equitable judges, are on their guard what they believe. This is no less offensive to the truth, than running into the other extream; for the *Sceptick* hath too great a scarcity of other arguments, to let one of this sort pass (*b*). *Plutarch's* rule in a parallel case comes to this; *Nec omnia,*

(*b*) *Lucian* has displayed all his art, in that Dialogue which he calls the *Philopsoedes*, to make the folly and weakness complained of here, stand for a demonstration that there are no separate spirits. He brings together the chief men of the several sects of the Philosophers, to talk such wild and weak things of apparitions and visions, as shock common sense: and introduces a *Sceptick*, who of course must have all the sense and learning in the company, to confute



*nia, nec nihil* (i); and a sober man will make it his rule. But albeit we may *pretend* experience which we have not, or *dissemble* that which we have, to one another; none of us can conceal his own experience from himself,

such silly stories, and shew us the wisdom and sobriety of believing nothing. This part he acts well enough, till one of the company desires him to give his reasons for constant doubting. It was not so easy to acquit himself in this case. Their vanity and folly were his best arguments. All he says is, that Democritus of Abdera shut himself up in a monument without the city, writing and studying night and day; and when some waggoners would have frighted him into a belief of spirits, with a counterfeit apparition; without vouchsafing to look about at them, he desired they would not disturb him. Ὀντω βεβαίως ἐπίστευσι μὴδὲν εἶναι τὰς ψυχὰς εἶναι ἔξω γινόμεναι τῶν σωματίων. And with this flourish he artfully leaves the company, and avoids answering to the troublesome question about oracles. He believed that it is only matter which thinks in us, while we are alive; and that therefore the soul is nothing at all when out of the body.

(i) I shall quote his reason for this rule, as well as the rule itself. It is in the life of Camillus, where having spoken of several prodigies, he adds, Ἀλλὰ τοῖς τοιούτοις, καὶ τὸ πιστεῖν σφόδρα, καὶ τὸ λίαν ἀπιστεῖν, ἐπιφθάλμιος ἐστὶ, διὰ τὴν ἀνθρωπίνην ἀσθένειαν, ὅροι οὐκ ἔχουσιν, οὐδὲ πρατοῦσαν αἰτῆς, ἀλλ' ἐκφορομένη, ὅπερ μὲν εἰς διανοητικὴν καὶ τύφον, ὅπερ δὲ εἰς ὀλιγωρίαν τῶν θείων, καὶ περιφροῦσιν. The rule he lays down for this is, Ἡ δὲ ἐνυλάχεια καὶ τὸ μὴδὲν ἄγειν, ἀριστον. Whoever pleases to consider the catalogue of prodigies in this place, where he lays down the rule, will see they are none of the least size. In short, this διανοητικὴ, that is, a fear of spirits, hath been much abused by vain or weak people, and carried to an extreme, by designing and crafty men perhaps: but that it should entirely be cast off, I think the most rigorous philosophy will not justify; though Mr. Bayle says in a like case, *Aussi faut-il avouer, qu'il n'y a qu'une bonne & solide philosophie, qui comme un autre Hercule, puisse exterminer les monstres des erreurs populaires: c'est elle seule qui met l'esprit hors de page.* (Pensées Diverses. Sect. 21.) If this *solid philosophy* of his, is founded on the natural powers of matter, it will never answer the end. So we find Lucretius boasting of his philosophy as an excellent remedy against the fear of any Being,

*Hunc igitur terrorem animi, tenebræque necesse 'st*

*Non radii solis, neque lucida tela diei*

*Discutiant; sed naturæ species, ratiôque.*

Lib. 1. ver. 147.

It is true, no evil can happen to us in God's world, but by our own fault; but that subordinate Beings, are never permitted, or commissioned, to be the ministers of his will, is a hard point to be proved. And that *direct Atheism* is better than this *Deisidemony*, is horrid. It is to say, rather than to believe that God may allow inferior Powers to be the ministers of his will against us; it is better to maintain that he hath no perfection, no power, is nothing; nay, better to maintain, that there is no such thing as reason, or truth, or goodness in nature. For, as hath been said, without the existence of such a Being, all these go out in everlasting darkness. I might farther observe, that in the late remonstrances against this *Deisidemony*, the Deity himself seems to be included, as one of those spirits we need not stand in awe of: so that at any rate *Atheism* is better than to admit of a God who could do any thing, but protect us in our folly, or who could punish our acting against the law of our nature, reason. But of this elsewhere.

which

which is therefore the surest conviction (*k*). And in some cases the experience of one man becomes that of another; as when we see people start, cry, get up, lay about them, and do abundance of other extravagant actions in their sleep. *Lucretius*, in a place cited before, says,

*Tollunt clamores, quasi si jugulentur ibidem:  
Multi depugnant, gemitusque doloribus edunt.*

However this humour of telling vain stories is the reason that a man cannot give such instances, as consist with his own knowledge, or might otherwise be depended upon; because however true, they have something in telling, that favours of the chimney-corner: and therefore I have purposely avoided even so much as the mentioning them. And though the examples given by *ancient Authors*, will better bear telling, as having stood on record for many ages; yet I have declined laying the stress of the argument on these. That reasoning is most convincing, which is most universal, and draws nearest the experience of every body. Yet I shall venture sometimes to mention *these last*: but still, without insisting on the certainty of the particular facts, only hypothetically, and so far as they are not impossible to happen, nor unlike to what does still happen at this day. Some of them are singular; and great events have been consequent upon them; a qualification which still puts them farther beyond exception: and generally this is the reason why they are at all transmitted to posterity. It had been childish to have inserted any thing of this kind without some such reason, and as it had a relation to the events treated of. But if there had been any thing unnatural, or absurd in them, they would have been entered with a *note*; as the more judicious sort of Writers always do traditions seemingly fabulous.

XXXV. But there are other more material Objections against this conclusion; it may be said, That since many bodily distempers are accompanied with strange contradictory scenes of vision, even while we are awake, they seem rather to proceed from the disorder of the brain, than to be excited by immaterial Agents; or if we should allow that they are so

(*k*) I can't help thinking it would be well if we were a little more curious in examining those instances that happen to ourselves, and weigh the particular circumstances of *spontaneity, life, language*, against the *inertia of matter*, or the *inflexibility of mechanism*, and this perhaps would convince us at home.

excited,

excited, those Beings must be very trifling, idle, absurd, ignorant, weak; or such as we cannot well conceive separate spirits to be. That it is absurd to suppose such Beings busied in suggesting imaginary phantoms even to brute-animals, as we must say they do, if this conclusion be just with respect to men. That the most part of the things we fancy we see in sleep, are so wild and inconsistent, that one cannot help thinking chance hath a great share in their production, &c. To speak to each of these singly, we may observe first in general, that there are few truths, except those seen intuitively, against which objections, founded on seeming probability, and old prejudices, may not be raised; if we suffer the reasons to slip out of our mind from which they were concluded, and retain in view only our former way of thinking about them. It is an easy, but a fallacious method, to run away with a flux of words: we may draw up such a specious shew of *probabilities*, supported by prejudices, as shall make a dreadful appearance taken all together; and yet turn to nothing at last, when *examined* and *sifted* separately. When an *exact Person* makes objections for the love of truth only, he will be severe in examining his own objections in the first place, and endeavour to throw them into the rigorous form of an argument, proving all his assertions as he goes along, and not expect that any thing should be allowed him, purely because he is on the objecting side. When we take this way, we generally save ourselves and others a good deal of trouble, by finding out where the mistake lay. For it is a sure principle to trust to, *That two contradictory assertions cannot both be true*; and if we can find no fault in the reasons that establish the conclusion on the contrary side, we should suspect our own objections. Those indeed are the most promising objections, that attack directly the reasons on which the thing is founded; but if they leave these standing, and turn to *by-considerations*, much is not to be expected from them. In that case, *viz.* when a conclusion is founded on such reasons, as are liable to no exception; and difficulties from other considerations are only offered: it follows from the *consistent nature* of all truth, and the *necessary harmony* between all true propositions, that satisfaction enough is given them, if it can be shewn, that it is possible and consistent enough, that the thing objected may be for such a reason, and in such a manner; though it cannot be positively said, or proved, that it is for this very reason, and in this particular manner. The point then comes to this. Such a circumstance or appearance, which is on all hands allowed to be real [as that many of our dreams are chimerical and wild]

would



would not be, if such a conclusion as is pretended to be established [to wit, that they are exhibited by separate spirits] were true. And in answer to this, a possible and consistent reason is given, why it might be so, notwithstanding this conclusion; and a manner is shewn, in which it might so come to pass; though it cannot be proved, that this is the very manner, or that the very reason. Then it follows that the appearance, contended to be inconsistent with the conclusion, is consistent with it *more ways than one*; on supposition that the reason given, or manner shewn, is not the real reason or manner that obtains. And a thing that is possible *two ways*, cannot be impossible. It was but necessary, in such an intricate subject, to premise thus much concerning the nature of objections to a legitimate conclusion. The design of all reasoning whatsoever (as was hinted above,) is in order to avoid contradiction; and if denying the cause assigned of the present phænomenon, forces us upon it; to have recourse, to wit, to the *powers* of *dead matter*, or of *mechanism*, for the appearances of life; or to suppose that effects may be perfecter than their cause; to raise objections here will not appear so easy to a considering person.

XXXVI. From these considerations, a general answer might be given to the difficulties mentioned; for unless it could be shewn that this instance here argued from, is such as never happens to any man; or that the reasoning upon it is faulty; neither of which, it is presumed, can be done; it will follow, such difficulties notwithstanding, that in this, and such other like instances, the agency of separate spirits is plainly necessary; which is the chief thing asserted. And, as was argued N<sup>o</sup> 10. if we could be certain that such an instance had happened *but to one man*, and that *once only*; the conclusion would still be certain, with respect to that one instance; that some living, invisible Being effected it, and therefore existed. *A contradiction once happening*, is itself a contradiction. Nay, let it be observed, though a Sceptick could fairly prove, that in other examples, not thus qualified, another cause obtained; even this would not invalidate the conclusion made. For reason would always force the same inference, from the same conditions and circumstances, whatever might be in other cases. And any one will readily allow, that the instance here assigned (or rather that part of an instance) draws nearer to the common and ordinary sort of dreams, than to those that are very clear and significant. We frequently dream that we are in company with other men,  
*who*

*who act and speak like men.* This adds the appearance of *language* and *rational action*, to life and spontaneity. But that which will determine a man, who considers this affair justly, and hath an eye always upon the *inertia* of matter ; to ascribe all the scenes offered to us in our sleep, to the same cause, is, That matter is as little capable of *spontaneity* and *life*, as of reason itself. The impossibility of its ever becoming a *self-moving substance*, was that which we first discovered concerning it. And every thing that we hear or see in sleep, is full of *spontaneity* and *action* ; if not of reason. Let any one explain to me, how the particles of the sensory could, of themselves, and without external impulse, represent *an animal pursuing us* ; a *crawling serpent*, or *flying fowl*. And the particles of the sensory, if any thing, must do it ; for it is that to which the soul is united, and which communicates the impressions immediately to the soul. Let him not tell me of *mechanism*, or *chance* here ; for it is absurd to speak of them ; upon the same account as it would be absurd to ascribe the *real motions* of the living creatures themselves to these principles. It is the spontaneous principle that we want, the necessity of which makes us allow an *immaterial Mover* to every living thing. But farther ; if we have a vision represented to us, where there are *rational agents*, or men ; brute, or *irrational creatures* ; together with a *scene* or system of *inanimate things* ; as every representation must have a place, or scene where it exists : we cannot say that invisible Beings form and exhibit only the *two first particulars*, (the rational and spontaneous parts) and leave the soul itself, or chance, or mechanism, to form the inanimate parts, or *scene of action*. All is, as it seems, the work of the same agent, and exhibited at once. Therefore I think it was extremely accurate in *Ovid*, to assign a third Deity, who should represent immovable rocks, standing forests, running waters : —

*Ille in bumum, saxumque, undamque, trabemque,  
Quæque vacant animâ, feliciter omnia transit.*

And if we should consider *the exhibiting of monsters*, and things quite without the verge of existence, the difficulty of finding another cause for them is not lessened but increased, as they recede farther from the course of nature, and stated laws of mechanism : yet these are made the main arguments for chance. Thus we see the philosophical consideration of dreams doth not so much regard, whether they are consistent schemes, according

to

to the course of nature, as *the impossibility* of their being physical productions. There is enough in the most incoherent of our dreams, or even in a part of these, to shew that they are things quite above the powers of matter or mechanism. Nor is it philosophical, I think, to seek for different causes of the same kind of appearance, though the several instances may not be all alike. It is a *maxim* in philosophy, when effects are all of one kind, though perhaps not equally perfect in degree, that they proceed all from the same kind of cause (*l*). Artists equally good might produce pieces of work unequally perfect, for a thousand reasons that could be named. Often we see a cause confessedly the same, produce effects not equally perfect. From this we would not infer, that some pieces were the effect of art, and others of chance. And often the nature of the thing produced doth not require so much skill to be employed. Thus to instance in the present case, from the same description of *Ovid*; we may conceive less art is necessary to his *third Deity*, to represent to the fancy in sleep, mountains, houses, rivers; than to the *second* to exhibit the motions and *spontaneity* of animals, though mute: but that it is still harder than either of these for the first, to represent men *speaking* and *acting* like rational creatures.

XXXVII. As to what is urged, that bodily distempers may be the cause of these representations, enough hath been said already (*m*). No man can seriously persuade himself, whatever he may say, that the simple indisposition of the brain, or any other part of the body; that is, a mere *disarrangement* of material parts, can be a sufficient cause, why a scene of vision is obtruded on the soul, where there is life and reason: nor doth he really understand himself when he says so. How, I pray, is it possible that the mere disarrangement of the parts of matter should perform this; when it hath been shewn absolutely impossible, that any arrangement of them should perform such an effect? But what strange causes have men adopted into their philosophy! We could then be certain of nothing, if a *defect*, the

(*l*) *Effectuum naturalium ejusdem generis eadem sunt cause: ut descensus lapidis & ligni ab eadem causa procedit, &c.* Introduct. ad ver. Phys. Lect. 8. Axiom. 6. Every body would allow that some dreams are exhibited to the soul by invisible Beings; but that others are the effect of some other thing (they know not what :) This, though enough to my purpose, is not enough in philosophy, I presume, if the reasoning in this paragraph is right; which therefore ought to be well considered.

(*m*) See the note (*n*) in this; and (*b*) in the last.



utter negation of a cause, could perform things of such a high nature. It is true, these visions are ofteneft (though not always) obtruded on the fancy, when the body labours under some previous disorder: but let me ask; Is it not quite a different thing for these scenes of spontaneity and life to be effected *purely by the disorder*, and to be exhibited to the soul only *upon the occasion of the disorder*? Or is it less contradictory, that they should be produced without a sufficient cause, when the body is indisposed, than when it is otherwise? And what shall we say, when they are effected without any previous disorder? Both *order*, and *the want of order*, cannot be the cause.

XXXVIII. This, if duly attended to, will satisfy us, that the indisposition of the body can as little produce these visions *while we are awake*, as while we sleep, or rather less; so that an *Objector* seems to argue with more disadvantage in bringing in this as a *parallel case*, to shew that our dreams proceed from a bodily distemper. But to apply the argument particularly: it follows from what has been said, that if a man, under an indisposition of body, from what cause soever it may arise, should see what other people about him do not see, and cannot see; if the object seen is such, as cannot be produced without a living spontaneous cause; if he sees it with fright and reluctancy, and if it gives him uneasiness and pain, so that the soul itself cannot be this cause; provided, I say, he sees it so, and such, it follows from the reasoning above, that a *living intelligent Cause* as certainly tampers with his organ *then*, and makes these impressions upon it, and maintains them there, notwithstanding the action of external objects upon it at the same time, as if the same thing happened to him in his sleep only. If the thing seen be of that kind, and hath all the conditions requisite to infer the conclusion concerning a vision seen in sleep, the circumstance of *being awake* can make no alteration, nor change the necessity of the reasons in the former case; it only requires a greater degree of the same kind of power to be exerted: or rather the circumstance of being awake makes the conclusion more evident and plain in this last case; for then we have our memory unclouded, and all our former ideas and experience, to have recourse to, whereby to disprove (as we might think) the reality of the objects offered, as existing *ab extra*; and it is common for persons in such circumstances, to reason consistently enough about such other matters, as have no relation to the thing in question: whereas in sleep we are deprived of those helps, by

the nature of that indisposition. Now, as it would require greater art and cunning, to impose on a man of judgment and sense, than to deceive an unexperienced infant : so in the circumstance of being awake, it is evident more power must be exerted, and that less than the cause assigned could not produce the effect. Thus it is easily conceivable that these visions might be offered to the soul, not only while we sleep, but while we are awake, (as the objection supposes) and not only while the body labours under some indisposition, but while it labours under none : and that they may consist of one particular object seen, and for a short time ; or of greater variety, and for a longer space ; so that these Beings could tyrannize over the soul, and maintain their illusions stubbornly, the body being no way previously indisposed. And yet we call this *madness*. The words *desipere, delirare, insanire*, carry with them a sort of imputation on the soul itself, as if it fell into those disorders through some fault in its own constitution. The persons so affected meet with contempt instead of pity : but who can promise himself immunity ? As I said above, he hath not rightly considered the affair, who thinks he could stand his ground.

*Sic temere in nosmet legem sancimus iniquam.*

The soul in itself is an uncompounded, simple substance, and hath no parts, and therefore properly *no constitution*, neither is it liable to *any change or alteration* in its own nature, (Sect. 3.) The *inert matter* of the body could never affect it thus. That could only *limit* its faculties *farther and farther*, or deaden its activity, (Sect. 4.) but not animate it after such a *terrible* manner. Hence there is no other way of accounting for its being affected *in this* manner, but by the *cause* I have already assigned ; unless men would run up to the very *first Cause* for effecting the present phænomenon. See the argument in N° 29. Let them chuse. Thus these material sensories, to which, in the opinion of some, we owe the perfection of rational thinking, subject the soul to terrible accidents (n).

XXXIX. But

(n) Some things only transiently hinted at in this paragraph, would carry one a great way in speaking intelligibly concerning the disorders *our reason* is subjected to from some *external cause* ; but any man, who is not still *head-strong* in ascribing disproportionate effects to certain imaginary powers in *matter and mechanism*, may from what is said, reason consistently concerning the several cases that might be objected, without suffering himself to be entangled with sceptical arguments. There is indeed a great difference, and variety, in the several *phænomena* of *reason disturbed* ; but universally, the *disease* could not be lodged in the soul itself : nor could the *matter* of the body

XXXIX. But farther, *the transition* from one of these states to the other, seems almost to lie, I think, within the reach of our conception. It is matter of fact, and we need not be afraid of being deceived, when we allow it, that some people *rise* in their sleep; and *do certain actions*; that they *speak, threaten, fall a fighting*; without being awakened with all the motion they give themselves; and that they are with difficulty brought to themselves again, even though their eyes are wide open. (See the Note (f), No 5.) Now this can proceed from nothing else but a scene of vision's being strongly printed on the imagination, and obstinately maintained there, by some living intelligent Being, notwithstanding that external objects act upon the sensory at the same time. And if the power of such a Being is unrestrained, it will equally possess the fancy with these delusive scenes, without waiting for the occasion of sleep to introduce them; and obtrude them forcibly upon the organ, amidst the action of external objects. For it requires but a greater degree of the same power, to make *delusory impressions* upon the sensory, while real external objects are making *true impressions* upon it; than it would require to make the same impressions, while no other impression from external objects is made upon it at the same time. If one is made to see in his sleep a man pursuing him with a drawn sword; there are certain *proper vibrations* excited in the optick nerves, or such impressions made upon that part of the brain, on which the optic nerves act, as if these vibrations were excited in them. And if the same vibrations are *more powerfully* excited in the optic nerves, while the eyes are open, *than those* excited by external objects then acting, the man pursuing with the drawn sword will still appear, even though the eyes be open (o). And thus by easy steps we see,

that

affect it any other way than by *deadening* its activity, which, I think, is never the case in these appearances. In short, the disorder of matter might make a man a *stupid Idiot*, subject him to *sleep, apoplexy*, or any thing approaching to its own nature; but could never be the cause of *rage, distraction, phrensy*, unless it were employed as an instrument by some *other cause*, i. e. it cannot of itself be the cause of these disorders of reason. If the *inertia* of matter infers any thing, it infers thus much. And all this together, considered equitably, vindicates the rational nature of the soul from depending on matter for its perfection, or any other way, than as it limits its faculties, or may be made an instrument to disturb it.

(o) *Aristotle*, though in this whole affair he assigns a different cause from that here given; yet he describes the formal manner, why *ecstatic persons* (as he calls them) see what others do not, and cannot see, nearly the same way: because, to wit, the ordinary motions in the sensory are overcome,



that dreaming may degenerate into possession; and that the cause and nature of both is the same, differing only in degree: for *dreaming* is but *possession in sleep*, from which we are relieved again when we awake, and external objects begin to solicit the perceptivity through the senses: but the other possession is more stubborn, and not to be displaced so easily. We may conceive, when such a Being is allowed the ascendant over our ordinary sensations and ideas, it will keep up that power as long as possible. There is somewhere, I think, in Dr. Tillotson's sermons, a pious reflexion to this purpose, "That if our imaginations were let loose upon us, we should be always under the most dreadful terrors, and frightened to distraction with the appearances of our own fancy: but that an overruling Power restrains these effects." Now it is not easy to conceive what can be meant by not letting our imaginations loose upon us, unless it be understood of restraining the power of these invisible Beings, which would otherwise incessantly distress the soul with such unpleasing sights. If the matter of fact in the beginning of the paragraph, from which this transition is made appear conceivable, should be contested, or denied, though *Lucretius* himself vouches the like instances (*p*); yet taking it only as a bare possible supposition, contrived on purpose to argue from, the reasoning on it as a supposition, will be still as intelligible, as if it were real; and the degenerating of the one appearance into the other equally possible to our way of conception; which is all that is intended by it. For it is by no means pretended that this may be the only way, by which separate spirits may affect us in our present state.

overcome, and drowned as it were, by foreign motions; of which therefore these persons are chiefly sensible. Τῷ δ' ἐνὶς ἰκσατικῶν προορῶν, αἷτιον· ὅτι οἰκῆσαι καὶ σῆσαι ἐν ἐνοχλῶσιν, ἀλλ' ἀποριπύονται· τῶν ζυικῶν οὐ μάλιστα αἰσθάνονται. And a little below of *melancholic persons*, he says, οἱ δὲ μελαγχολικοί, διὰ τὸ σφόδρα (ob vehementiam) ὥσπερ βάλλοντες πόρρωθεν ἑυτοχοί εἰσι (he had been speaking of such as are εὐδυνόμοι); the reason is—Διὰ τὴν σφοδρότητα ἐκ ἐκκρίνεται αὐτῶν ἡ κίνησις ἐφ' ἑτέρας κινήσεως. Which is as much as to say, the strongest impression predominates. But what is wonderful here is, that *Aristotle*, believing there were ἰκσατικοί and εὐδυνόμοι, should offer to account for this mechanically. He might as well have said, that the reason in natural philosophy, why some men are rich, and others poor, is the different colour of their beards!

(*p*) Multi depugnant, gemitusque doloribus edunt: —

And

Vix ad se redeunt, permoti corporis aestu.

XL. What

XL. What is here said with respect to the objects of *sight*, is easily applicable to those of *hearing*: these invisible Beings have the same power over the sense and organs of hearing, as they have over those of seeing. In sleep we as well hear words and sentences spoken, as see objects of sight represented; and it is as conceivable how our dreams should degenerate into possession, in this respect, as in that. Therefore I shall venture farther to say, that some of those relations of apparitions we meet with in *Historians*, whether the facts be true or false, have nothing inconsistent in the telling. For those spirits may, upon some important occasions, be licensed so to affect the sensory, according to the exigency of the affair, that all the scene of vision, which is then thought to have an existence from without, may be the effect of impressions made on the brain only. Thus, for instance, that apparition mentioned before, which *Plutarch* tells us was offered to *Brutus*, before he came over from *Asia*, and came again to him the night before the battle of *Philippi*; which is there described as a *dreadful spectre*, of a *monstrous and ugly appearance*; and *that noise* which he heard as of one entering his tent; and *these words* it is said to have spoke to him, "I am, O *Brutus*, thy evil Genius; but "thou shalt see me again near *Philippi* (q);" might all be but inward representation upon the sensory: and any other person present might neither have heard or seen any thing. However, this is suggested as probable only, or easily conceivable, from what is said above of the like spectres and visions offered to us in our sleep; and the easy transition there is, from making us see them in sleep, to the making us see them while awake; and because this is more conformable to our own experience and to philosophy, than the assuming condensed bodies of air. Yet it is not meant as if there were any thing inconsistent even in that supposition. Either of these ways is more conceivable, than that by which his friend *Cassius* accounted for this vision the next morning, when *Brutus* went and consulted him upon it, from the notions of *Epicurus*, in which there is

(q) *Brutus* was sitting in his tent, musing, and considering something with himself, when he thought he heard some body entering; and upon looking about he saw *δυνήν καὶ ἀλλόκοτον ὄψιν ἐκ φύλης σάμαντος, σιωπῇ παρὶς αὐτοῦ*: and asking unconcernedly, What Being it was, God or man; and what it wanted with him? The spectre answered, *ὁ σὸς, ὡς Βρούτε, δαίμων κακός· ὄψιν δὲ μετὰ τὴν Φιλίππους*.

nothing

nothing intelligible, and some things contradictory (r): or the way that Hobbes hath accounted for it since, who makes cold produce dreams and visions of fear, without either reason or experience to support his assertion; and for no other end, I think, but to obviate this difficulty (s). For, as was argued just before, (N<sup>o</sup> 37.) allowing that we saw terrifying and fearful objects, only when we were cold, which yet is the most unsupported assertion imaginable; is it not quite a different thing, that those objects should be exhibited to the soul, by a designing intelligent Being, upon the occasion of cold; and that they should be produced by cold, as an efficient cause?

(r) Ἄρα δ' ἡμῶν τραπόμενος πρὸς τὸν Κάσιον, ἔφραζε τὴν ὄψιν· ὁ δὲ, τοῖς Ἐπικύρου λόγοις κηρύσσων, καὶ περὶ τούτων ἔδος ἔχων διαφύρασθαι πρὸς τὸν Βρῦτον. Ἡμῶντος οὗτος (εἶπε) ὃ Βρῦτε, λόγος, ὡς ἐν πάντα πάσχομεν ἀληθῶς, εἰδ' ὁρῶμεν, κ. λ. As if the soul did not suffer, what it thinks it suffers; or had not the ideas it hath. And afterwards he says, the soul of man hath in itself both the art, and materials, to make such visions; as if it acted, without knowing it acted; or absurdly laid a plot to terrify itself; as hath been argued before. Surely this vision was but a bad instance to apply Epicurus's notion to, and yet this is in part the notion that still obtains. It is that which Cicero falls in with, which was spoken to before; so that more needs not be said of it.

(s) "And since dreams are caused by the distemper of some of the inward parts of the body; divers distempers must needs cause different dreams. And hence it is that lying cold breedeth dreams of fear, and raiseth the thought and image of some fearful object — We read of Marcus Brutus, &c." *Leviath.* ch. 2. He makes Brutus to be sleeping; but Plutarch tells us, he had slept the first part of the night, immediately after eating; and had risen to digest something in his own mind. So that it had the disadvantage to Hobbes's scheme of being a waking vision, and that without any previous distemper outward, or inward, that we read of. But it is convenient sometimes to wrest a circumstance. Dion also was sitting meditating and thoughtful, in the porch of his own house, when the spectre appeared to him.

I shall give the relation of it in Plutarch's own words, since there is something very strange and remarkable in it. It happened while the Assassins were contriving his death, a little before he was cruelly murdered — Συνισταμένης δὲ τῆς ἐπιβουλῆς (says the Author) φάσμα γίνεται τῷ Διονίῳ μέγα καὶ τροπῶδες· ἐτόγγαν μὲν γὰρ ὄψις τῆς ἡμέρας καθιζόμενος ἐν πασάδι τῆς οἰκίας, μόνος ἂν πρὸς αὐτὸν τῆς διανοίας· ἐξαίφνης δὲ, ψόφῳ γινομένῳ πρὸς θάτην πέρι τι τῆς τοῦ αἵματος, ἔτι φωτὸς ὄντος, εἶδεν γυναῖκα μεγάλην, πολλῇ μὲν καὶ προσώπῳ μηδὲν ἑρπύς τραγικῆς παραλλάττουσαν, σάφηναι δὲ καλύπτῳ τινὶ τῶν οἰκίαν· ἐκπλαγίς δὲ διωκὼς καὶ περισφοδὸς γινόμενος, μετρίμψατο τὴν φίλιν, καὶ δηγῶτο τὴν ὄψιν αὐτοῖς· καὶ παραμένειν ἐδίτο καὶ συνυπνέειν, κατὰ πᾶσιν ἐκστατικῶς ἔχων, καὶ διδουκὼς μὴ πάλιν εἰς ὄψιν αὐτῷ μονοθῆναι τὸ τέρας ἀφίκεται.

It was far from being Dion's character to be easily shaken and dispirited; and his being in such dread lest the vision should appear to him again, and his begging his friends, to remain with him in the night-time, hath something terrible in it. Men who do not fear death, may yet fear something more than death itself. What is it that puts the soul in such

an



*cause?* Cold is but a mere want of some thing requisite, retarding the briskness of the motions in our bodies. *Heat* would have been a more probable *cause*. Indeed, not the philosophy of the Sceptick alone, but of the generality of men, is full of negative *efficients*! It would not, I think, be a greater absurdity, if we should say that a horse, if he be sound, can but walk, or gallop at most: but if he be lame, it is not impossible that he may sometimes fly! For it seems equally absurd, to suppose that our bodies, which when best disposed can only be moved mechanically, should, by their indisposition, become the cause of *life* and *spontaneity*.

XLI. As to the particular, Why these terrifying objects should be frequently exhibited to the soul, when the body labours under some disorder; reasons

an *agency* in these cases? Or why should they happen before *bloody* and *tragic* events? Or not happen at the approach of natural death? Let one of those men, who affect to call themselves *strong spirits* [*les esprits forts*] suppose himself in *Dion's* place, and then think whether he could be proof against terror from supernatural *causes*. Did never a dream shake him, divest him of all his boasted intrepidity and firmness of spirit? If so, he may draw a consequence from hence, how little the human soul could be a match for certain *Causes* that may be in the Universe. He hath not taken the just measure of his own courage, who thinks he could be a match for *any thing*: and yet he who reckons all terrors *false* and *vain*, ought to think himself a match for *every thing*. I own *chance* and *atoms*, or an *unguided world* of *matter*, is but an unpleasing prospect at best; and a man who was seriously persuaded of such a world, would need no ordinary stock of courage on many occasions; but in such *distresses*, these Philosophers begin to think of their Adversary's arguments, and wish at least that they may be true, which shews they are not proof against the *fears* of their own scheme. But there is something more dreadful, than *chance* and *atoms* still behind. In a word, there is a great difference between the fear of Death, and *other kind of fears* which the soul may feel, and is often subjected to; and which all the fortitude of human courage is not able to stand, let men boast as they will. Otherwise let them shew me how it is possible, that the soul may remain *unterrified* even in a dream; or that it may not be placed in as weak and dejecting circumstances while we are awake. A man may bravely fight his *Enemies*, and not be conquered even in death; but in the case we are speaking of, there is no kind of Arms with which we could defend ourselves, and our fright proceeds from finding ourselves *every way* in the power of *some Being* superior to us.

I know not how Mr. *Hobbes* would have accounted for *this instance*, if he had tried his hypothesis upon it. *Dion* was awake when this happened to him, and thinking on something quite different from that which so suddenly surpris'd him. These circumstances, and the character of the man, far from having a weak or visionary head, make it difficult to find an evasion. No men in antiquity are less liable to the suspicion of weakness and credulity, than *Brutus* and *Dion*; or rather farther removed from those *follies*, the Sceptick seems to complain of. *Plutarch* says they were ἄνδρες ἰσχυροὶ καὶ φιλόσοφοι, καὶ πρὸς ἅντι ἀμφοτέρωθεν, οὐδ' ἐν ἅλῳτοι πάδες.

neither

neither contradictory, nor improbable might be offered; which therefore, from the considerations in N° 35. take off the weight of this scruple. These spirits may possibly be under a restraint, and wait only an opportunity to gratify their enmity to us. Let us consider the disease called the *Incubus*, or *night-mare*, which many persons are tormented with in their sleep (t). It is generally accompanied with frightful, ghastly apparitions, which are then obtruded on the imagination; so that the party is made to fancy that the distemper itself proceeds from *their* pressing him down with a weight like to stifle him. And for this very reason, the *Latins* call this disorder the *Incubus*; as if we should say, *the overwheeler*, or *oppressor*: and the *Greek* name, *ἰφιάλης*, imports much the same thing. And this, I believe, is allowed to be a casual distemper of the brain, by which the animal spirits are obstructed. But now the bodily indisposition here, and the disagreeable vision made to accompany it, are *two very different things*: and as it would be absurd to make the *disorder* of the material organ the *efficient cause* of the apparitions that are exhibited along with it; for these are often *ugly phantoms*, which to fright us the more, appear to have bad designs upon us, threaten us, wrestle with us, get us down, all which infer a designing, intelligent cause: so, their being exhibited along with it, and adapted to it, shews us, I think, that these Beings wait for, and catch the opportunity of the indisposition of the body, to represent at the same time something terrifying also to the mind. Farther, we may observe, that the more pregnant instances, where people are subjected to illusions of the fancy, and such things as disorder their imagination, generally happen after the brain hath been discomposed with *anger, fear, disappointment*, or other violent passions; unquestionable examples of which might be given, if one needed to assign them: but they occur to every man's own observation. And it is, I think, because the previous indisposition generally gives an opportunity to these Beings to affect the imagination, that the *disorder of the brain* stands in common discourse, for this *consequent trouble*; and that we reckon it the *efficient cause* of these visions, having nothing readier to say. I shall venture to give an instance, which seems to confirm this, related both by *Plutarch*, in the life

(t) See the word *Ephialtes*, in Mr. Chambers's *Cyclopaedia*, or *New Dictionary*; where an account of a surprizing instance of this disease is given. *Macrobius* says of it—*In hoc genere [somnia] est ἰφιάλης, quem publica persuasio quiescentes opinatur invadere, & pondere suo pressos ac sentientes gravare.* In *form. Scip.* lib. 1. cap. 3. He means the ugly phantoms, which are made to accompany the pain felt.

of Antony, and App. Alexandrinus, in his history of the Syrian War, (if the latter may be reputed a different work.) Antony's army in their return from *Parthia*, were in great scarcity of provisions; and among other roots and herbs, which their necessity forced them to have recourse to, without knowing their natures, they eat of a certain *poisonous herb*, after which they became delirious, with this particular kind of phrensy, that, forgetting all other kind of business, they thought it of the last consequence, to turn over, and dig up all the stones they could find in their march: and the Historians say, *the whole field was filled with the soldiers, bowing down, digging up, and removing the stones (u)*. And in this occupation numbers of them miserably perished. Now shall we say that this, or any other herb, had a quality to possess their minds with this absurd notion? It is certain it could do nothing, beyond indisposing their bodies, by a change of the parts of matter in them. Nor can this, or other like instances, I conceive, be accounted for, but by allowing that these Beings laid hold of the indisposition, which the poison had wrought in their bodies, to occupy their minds with this strange delirium.

These considerations, together with what was mentioned before, No 38. make it probable that such Beings lay hold of the indisposition of the body, to distress the soul, and insult human reason, by occupying the imagination unnaturally: that the several kinds of *the disorders of reason* (in which we suppose the soul itself to be distracted) are but the effect of this unnatural occupation, by spirits, who have not power enough to invade the quiet of the soul, till its organ be previously disordered: that sleep, whose first and greatest effect it is to darken the region of memory, and all former impressions (v), is one of those disorders which affords them most frequent opportunity, as recurring every night: that if it were not for the right disposition of the organ at other times, and that the perceptivity

(u) ——— Τραπόμνοι δὲ πρὸς λάχανα καὶ ῥίζας, ——— ἤψαντο τινος πόας ἐπὶ θανάτου διὰ μακρίας ἀγρύπνης· ὁ γὰρ φαγὼν ἔδην ἐρμηνεῖτο τῶν ἄλλων, ὅθι ἐγίνωσκεν, ἐν δὲ ἔργον εἶχεν, κινῶν καὶ ἐρμηνεύων πάντα λίθους, ὡς τὴν μεγάλῃς σπουδῆς ἄξιον πραττόμενος· ἢ δὲ μετὸν τὸ πιδίον κεκυφότερον χαμαί, καὶ τὰς λίθους περιφυττόμενος καὶ μεθιστάμενος.

(v) I have before observed in the Notes (c) and (d) that *Lucretius* was grieved to account how the memory should be darkened, and yet a material soul be still awake. He could not deny either part of the appearance, and at last is forced to break the knot which he could not loose.



tivity is regularly solicited and occupied by the natural action of external objects, they would never cease to torment the soul: and that, even perhaps at certain other times, when the organ is not indisposed, the curb that restrains their power may be taken off, for reasons that cannot be but good and wise; so that, notwithstanding the presence of real external objects acting on the sensory, they may terrify the soul with unpleasing sights, visible only to those against whom they are thus let out; as the Poets tell us *Pentheus* and *Orestes* were pursued by visible furies, the one for sacrilege, and the other for parricide (x). Upon the whole then, as there are manifest contradictions in any other account that can be given; so there is in all this such a degree of probability, as makes the mind rest satisfied with the reasonableness of the supposition, which is enough for taking off the objection in hand, according to the remark that was made N° 35. *The soul cannot have a disorder lodged in itself, nor be subject to any disease*; a man who considers the simple nature of it, will never affirm this: and when he farther considers the only remaining way in which matter can affect it, which is by *deadening* its activity and powers; he will scarce be able to hinder himself from assenting to these several particulars (y). It is certain *these disorders of reason* appear after grief, love, or some other great

*disappointment*

—Cum jam defiterint ea sensibus usurpari  
At reliquas tamen esse vias in mente patenteis,  
Quæ possint eadem rerum simulacra venire.

Lib. 4. ver. 971.

It is strange to conceive some passages left open in the soul, while the rest are shut; or how one part of a material soul should be asleep, and another awake. It seems the several parts of the soul relieve one another, sleeping by turns; as the Poets tell us of *Argus's* eyes,

Inde suis vicibus capiebant bina quietem:  
Cætera servabant, atque in statione manebant.

(x) *Eumenidum veluti demens videt agmina Pentheus*——  
*Aut Agamemnonius scenis agitatus Orestes,*  
*Armata facibus matrem, & serpentibus atris.*  
*Cum fugit; ultricisque sedent in limine diræ.*

Virg. *Æneid.* lib. 4.

And again, though upon a different occasion he expresses the same thought, saying

*Apparent diræ facies, inimicæque Trojæ*  
*Numina.*———

Lib. 2.

(y) The soul can admit of no disease from matter, as having no parts to be disordered. It can suffer no alteration in its own substance, if that substance is not annihilated, as was shewn in Sect. 3. And if it should be contended, that a *simple substance* might be affected with dis-

*disappointment* have discomposed the brain. And why should they appear *then*? — When we consider *that Cause* which is the *power*, [the *mover*] in all mechanical motions, whether regular or disordered; there is no refusing this conclusion concerning these Beings, without formally ascribing the effect of *disordering our reason*, to the very *highest Being*, as has been said before. If the blood, or any other fluid, or matter in the body, moving after a new and unwonted manner, were the sole cause of this disorder, (which indeed is impossible to be conceived, if we call to mind what was said above, N<sup>o</sup> 25.) the *first Cause* being the only *mover* in these motions, this absurd and impious conclusion would be unavoidable.

And then, if the simple nature of the soul can admit of no disorder, or disease in its own constitution; the power of medicine cannot be said to cure it, as it cures the body: So that the insinuation [*mentem sanari, corpus ut aegrum, cernimus,*] is fallacious and equivocal in every respect; as was promised to be shewn in N<sup>o</sup>. 11. of the last section. Would it not be absurd to say, *That the soul is mad every night, and that awaking in the morning cures it again of its phrensy*? And yet there is as much reason to affirm this of dreaming, as of any other circumstance it can be in. We are injurious in debasing the nature of our souls all manner of ways. We would have the soul material: if it be not, yet we would ascribe the perfection of rational thinking to matter: and if that cannot be granted, we would then have the soul capable of disorder in its own constitution. But the several particulars above, if seriously considered, ought to correct our

ease, or disorder, at least by *immaterial Beings*, that would still allow *these Beings* to be the cause of the disorder, out of a too eager desire to shew that the soul might be capable of disease in its own nature. We would have the soul to *grow up*, to *decay*, to *sleep*, to *be mad*, to *be drunk*: who sees not that all these are ridiculous fancies too gross to be entertained concerning a *simple, uncompounded substance*? If the soul were mad, or had the disease lodged in itself; what could cure it again? The *virtue* of herbs perhaps! These could only effect a change in the disposition of parts, which it hath not. It would therefore still remain under this disorder, which must be *essential* (if I may so express it) to its simple substance; and we could not conceive any alteration, rectification, or change wrought in it, but by the power of the Being who created it. Thus it would be incurable by the power of all *second causes*: and that very argument brought to prove *that it is delirious and mad*, to wit, that it may be cured again, shews plainly, as it appears to me, that the disorder is not lodged in *itself*; since then it would be incurable. And since dead matter could never affect it thus; there is *no other cause* left in the nature of things to produce this appearance, but that which I have assigned. It is a self-evident truth *that, if a thing can admit of no change or alteration in its own nature, all change must be external to it.*

prejudices.

prejudices. The argument may be reduced to a narrow compass. The *inactivity* of matter infers the immateriality of an active living Being; the *immateriality* infers its *simple and uncompounded nature*; and its being simple and uncompounded infers *that it cannot be liable to any disorder or disease in itself*. The disorder of matter can only hinder its activity; and if we should say, it may be affected with disorder or disease from immaterial Beings, we incur the thing we would deny by this assertion.

XLII. That this notion of our dreams degenerating into a waking possession is not entirely new, we may see from those Authors, who have written on this subject before. Whatever way a man accounts for these two phenomena, he will readily give the same solution for both; there being such an affinity between them. *Aristotle* makes but a very little variation of general hypothesis, to account for that which he calls *ecstasy*; as hath been observed in No. 38. and in this he says men foresee things to come, as well as those whom he calls *ἰδνόμενοι*. The place is remarkable. And Mr. *Locke*, after giving a definition of dreams in his way, adds—"And whether that which we call ecstasy, be not dreaming with the eyes open, I leave to be examined." (2) By which way of speaking it is plain, he thought them nearly related. *Hobbes* supposes the same visions may happen to us *while waking*, as sleeping; viz. in great distempers of the organs; and proposes his solution of dreaming as including this particular case in it; of which below. And how explicate *Lucretius* is in this, hath been noticed above, No. 10. of the last. *Et quæ res nobis vigilantibus obvia mentis terrificet*—Indeed fright and terror is the general concomitant of these appearances; for but few persons, with *Horace's Argive*, are entertained then with gay fights, and pleasing

(2) Having described sensation, remembrance, attention, he adds—"And dreaming itself is, the having ideas (whilst the outward senses are stopped, so that they receive not outward objects with their usual quickness) in the mind, not suggested by any external objects, or known occasion; nor under any choice or conduct of the understanding at all. And whether that which we call ecstasy, &c." Let *Aristotle's* definition of a dream, that it is only the *φαντάσματα*, as in No. 6. be remembered here; and it is as absurd that the bare representation, or things offered, should be under the *conduct* or *choice* of the understanding, as it is that we should see what we please only, when we look out of our window to the neighbouring fields. As to the soul's own thoughts in dreaming, see No. 6. and what is cited from *Aristotle*. The soul reasons full as consistently, as an unexperienced stranger would do, about new and unknown objects.

objects.



objects. However *Lucretius's* fear was lest the soul should not be dead enough; and he proposes his solution to cure that. Again, *Aristotle* would have us believe, that the illusions obtruded on the imagination, while the person is feverish, arise from mechanical motions excited in the sensory; by telling us that the living creatures sometimes seen then on the walls, are nothing but a few strokes, or draughts, which bear a distant resemblance (a). But he should have remembered, that we hear and see things then, though all is dark and silent round us. We put some questions, and answer others, as if somebody was talking with us. But have sounds their images to represent them, or are those images visible in the dark? Such circumstances plainly shew a cause more powerful than a few strokes on the wall of the chamber, dealing with the imagination. And in the former part of the paragraph, he assigns the like poor and unsatisfying reasons for distractions arising from *love, grief, fear, &c.* From hence then it appears, I think,\* that if *these Authors* had accounted for this phenomenon by the agency of living invisible Beings, they would have concluded that waking spectres were also formed and represented by them; since they thought *dreams, possession or ecstasy, and apparitions*, all proceeded from the same cause, and were to be solved the same way.

XLIII. As to what is urged next, that these spirits must be ignorant, absurd, idle, weak, &c. otherwise our dreams would not be so trifling and inconsistent; a little consideration will shew us, that they are not such, and may yet represent our dreams as such. Their knowledge surely is surprizingly great, with regard to our nature and constitution. They must understand, not only how spirit acts on matter, since they themselves so act on our organs (b); but also how matter acts on spirit, since

(a) Διὸ καὶ τοῖς πύρεσσιν ἐνίοτε φαίνεται, ζῶα ἐν τοῖς τοίχοις, ἀπὸ μικρᾶς ὁμοιότητος τῶν γραμμῶν σωτηριζμένων. cap. 2. de Insomn.

(b) I have all along supposed, that impressions are first made on the sensory when we dream; and that the soul is made percipient of the representations, by means of these impressions; just as it is of external objects, while we are awake, by like impressions. The reasons for this are, *first*, the authority of *those Writers*, whom I have cited on this subject, they all suppose motion and material action the cause of dreaming; and therefore that the organ is primarily affected. *And then* the manner of our reminiscence of dreams: we remember them when awakened, by the help of those impressions; just as we do other things: a man's face, for instance, is the same way remembered in both cases, and leaves the same impressions. *Lastly*, that the soul should be directly affected by these spirits, and the impressions by which

Since they so affect these organs, that they affect the soul, in the manner by them designed. They must have an intuition of the secrets of material nature, to us inscrutable in our present state; and know the occult methods which the God of nature hath instituted, by which the nerves affect the sensory, and it affects the soul; since they imitate these so well, that the *natural objects* themselves could not produce the representation more to the life. If we justly admire the subtilty of God's work; what may we think of *imitating* or *copying* it? Can this be the work of *chance*, or *unintelligent mechanism*? I really think it is a species of Atheism to affirm it. The divisibility of matter soon carries the fine operations of nature out of our view; because we receive information, only through organs of the same matter. It is impossible therefore such organs should help us to discover the nice workmanship and contexture of their own parts, or any thing in any other object below particles of a certain size in themselves. No optical improvement will ever effect this. Such is the necessary imperfection of material organs: but the manner in which vegetation is performed; the whole theory of the animal œconomy; the secret springs of motion in our bodies; the imperceptible tremor of each little fibre; what share it hath in producing the effect; and how it is to be otherwise struck, that it may produce such a variation from the common method, as best suits the representation they design, (inasmuch that the very *deviations*, and *monstrous ugly things* they represent, seem to shew most skill;) these things, I say, must lie open and pervious to their view; since their perception of them doth not depend upon particles of any size.

XLIV. Their power and knowledge doth not reach to the exciting of vision only; they affect the auditory nerves themselves, or that part which those nerves affect, so as to produce the same sensation in the soul, and excite the same ideas in it, as if the words of that language which

we remember, reflected back by it on the sensory, recedes farther from our philosophy, and manner of conception, and the method of nature, which God hath instituted, which is the very reverse of this. Yet if any should contend, that this last method is the true one; it would rather heighten, than diminish the wonderful power and knowledge of these Beings, that they should effect the same things, by a contrary method to that which the God of nature hath instituted, and more strongly prove all that is inferred in this whole section. *To grant that the matter of the sensory is not first and directly acted upon, would be to assert, I think, instead of denying, an immaterial cause of dreams.*

we understand, were audibly pronounced, to the hearing of by-standers. This is a strange appearance, and full of conviction! It cannot seem to us to be the effect of ordinary power and knowledge, if we consider the matter attentively. It is in this particular that *reason* itself is represented, and rational ideas *conveyed*: which could not be done but by a *rational Being*. Articulate sounds stand for ideas; and these consistently put together are the effect of ratiocination. What cause but a rational one could do this? Moreover, it is not because the same Beings could not do the same thing, in any other, or all other languages; for men of all languages hear *these internal discourses*, each in his own, without an interpreter: but because we could not understand another. Thus the *knowledge* of languages, which is accounted so high an accomplishment among men, which costs them so much pains, and consumes so much of their time, though possessed by these Beings in perfection, costs them no study; nor is to be reckoned any part of their natural endowments; since by nature they do not stand in need of it (for separate spirits do not communicate perceptions by articulate sounds) but is as small an *accessory* to those perfections which are natural to them; as any thing we know can be to their knowledge. What shall we say, when the soul is made to read several coherent sentences of a Book in a dream, which is no more than some people really, not to say frequently, experience (c)? The soul cer-

(c) I shall here give the observations of a late ingenious Author on this particular, from *Spectator* 487. concerning which I spoke something N<sup>o</sup> 17. above.—But in dreams it is wonderful to observe, with what a sprightliness and alacrity *she* [the soul] exerts herself. The slow in speech make unpremeditated harangues, or converse readily in languages that they are but little acquainted with. The grave abound in pleasantries, the dull in repartees and points of wit. There is not a more painful action of the mind than invention; yet in dreams it works with that ease and activity, that we are not sensible when the faculty is employed. For instance, I believe every one some time or other dreams, that he is reading papers, books, or letters; in which case the invention prompts so readily, that the mind is imposed upon, and mistakes its own suggestions for the compositions of another.—Although he is mistaken, as to the efficient cause here; yet it is not to be supposed, that a person of such candor would have written so, without experience of the things in which he instances. But if the example of N<sup>o</sup> 7. on which the argument there proceeds, had been so full and explicate, it would possibly have been suspected, as contrived on purpose. Therefore I have all along chosen to argue from cases a little under the truth. The soul could not act in sleep, and not be conscious of its own action. And if what it is conscious of doing itself, be above what it could do while awake, as speaking readily in a language it is but little acquainted with, haranguing, &c. which is perhaps not impossible; I should think *even this* could not be accounted for, without interesting some *superior cause*: since certainly its own natural powers cannot be rendered greater, or quicker in sleep, than otherwise.



tainly doth not lay these sentences in print, and then read them, as if it knew nothing of its own industry, and action (*d*). All Mr. Locke's reasoning, *against a man's thinking without being conscious of any thought at all* (in which it is strange if he had any adversary) may be applied directly to this case. To be able to do this, it ought to be *two distinct Agents*, as has been said before. And to make *these books*, and this *written subject*, the effect of *chance*, or of any cause working mechanically, is something like *Ennius's Annals being compiled by a fortuitous jumble of letters*. To be reduced to say any thing like this, is a sign that a man hath a bad cause in hand; and can allow himself to say things, without being convinced of them; which is the worst disposition in the world for

(*d*) There was a particular objection raised against the argument in N<sup>o</sup> 6. which because it refers to something spoken of in this paragraph, I have reserved to be considered here, as I promised in the Note (*i*). It is as follows. "Against your argument brought to prove that the soul itself cannot be the cause of troublesome representations in dreaming, there seems place for an exception; that by the force of its own imaginative power it can represent such things to itself while awake; as *conversing with others, being upon a precipice, recalling the memory of imminent danger*, and the like; which it can work up to cause troublesome passions, such as fear and horreur; *Why then may it not be supposed, by the force of imagination, which exerts itself in sleep, to do the same?* There is a memorable story to this purpose, of a Gentleman who in the time of snow rode over the Lake of Geneva; and being told at his arrival in the city, of the danger he was in, it made such an impression upon him, that he instantly died. It is owned that in your forty fourth paragraph, there are some instances, which it seems not easy to reduce to this supposition."

But with much submission, *when the soul represents to itself while we are awake, objects of fear and horreur*, it is conscious that it doth this itself; in sleep it is quite otherwise: whence there is no parity to infer that it is equally active in both cases. *That the soul exerts its imaginative power in sleep, without knowing that it doth it*, is the point in debate, and ought to be proved. The instance of the Gentleman who died upon reflecting on the danger he was in, seems quite different, and must be differently accounted for. Allowing this particular example to be literally true (since many such stories are told) the reason of his sudden death, seems to be the same, as when one dies with a sudden excessive joy. — There are two instances of this kind given by *Livy*, after the overthrow at *Thrasimenus*; Two Mothers having heard that their sons were killed in the battle, upon seeing them return safe, dropt down dead with the sudden excess of joy. [*—Famillarum præcipuè & gaudia insignia erant, & luctus. Unam in ipsâ portâ, sospite filio, repente oblato, in conspectu ejus expirasse ferunt; alteram, cui mors filii falsò nunciata erat, mæstam sedentem domi, ad primum conspectum redeuntis filii gaudio nimio exanimatam*, lib. 22. cap. 7.] And accordingly some caution is to be used in acquainting persons with unexpected news that are extremely good, or extremely bad, lest the bare relation of them should prove fatal. The reason of this I leave for others to assign; but it seems to be a sudden and instantaneous effect, where there is no room for *working up the memory of past danger, to cause the troublesome passions of fear and horreur*,

for finding out truth. And such considerations as these made me say, N<sup>o</sup> 10. that the same kind of argument, that proves the material world was made by a *living, intelligent cause*, proves also that our dreams are contrived, and represented to us by *such a cause*.

XLV. Thus it by no means appears, that these Beings are ignorant, or weak; and from this it follows, that we cannot say they are absurd or contradictory; though we cannot find out the reason of every incoherent scene they present to the soul in sleep. They may have the spiteful design to endeavour to insult and confound human reason by some of them. They cannot excite in us contradictory, or self-destructive ideas; for the wildest ideas in sleep are as consistent and real ideas, because

as the objection supposes. If a man should read a *letter*, look upon a *precipice*, hear an account of the death of a friend, &c. which should have this fatal effect upon him; the soul would be *passive* in receiving these *impressions* which produce it. Perhaps the *quickness of the surprise* causes the soul [mechanically, and necessarily] to make such an *effort* on, or give such a *shock* (if I may so express it) to the animal spirits, as stops at once all the vital motions. Something like this seems to happen, though in a less degree, on *several other sudden surprises*; the body starts, or is suddenly shaken with this *effort* or *shock*, the heart palpitates for some time, and the pulse beats quick; all which it is impossible to prevent; the soul is passive or necessary in this case, and doth not *work up the passions*. And from this last particular we may conceive how the constitution of the brain itself may be disordered or shattered, (so to speak) and the exercise of reason be disturbed for ever afterwards; as in many cases we see it is, by sudden *fear, love, grief, disappointment*, &c. concerning which I have spoke N<sup>o</sup> 41.

In all these cases then the soul is *first acted upon*, by some object which causes these subsequent emotions, that prove fatal or hurtful; but this cannot be applicable to shew that the soul may present to itself painful and uneasy objects in sleep, without knowing that it doth so. It is here likewise *first acted upon* by some object from without; and the objection, when rightly considered, seems rather to confirm than weaken the argument it is brought against. To say the *force of imagination exerts itself in sleep* without the consciousness of the soul, is to suppose the soul *unconscious in its operations*; in which case we may *affirm* or *deny* any thing concerning it at pleasure; or if in sleep the *imaginative power exerts itself*, without the will and consciousness of the *imagining Being* [the soul] it must be a *distinct agent*, instead of a faculty belonging to an agent. And not to be conscious of one part of its own consciousness, at the same time *precisely* that it is conscious of another part of it, is altogether absurd, and destroys the evidence which arises from self-consciousness, as has been often said. If the instances in this paragraph do not agree with the supposition in the objection, (as is candidly owned) why should any other agree with it, where there is the *same distinction and diversity of consciousness*? If the soul doth not form and present to itself the *sentences in a book*, why should it form and present to itself, any other object seen in sleep, in beholding which it is conscious of being passive, and often involuntary? But of all these particulars enough hath been said above.

actually perceived, as the sobriest ideas we have while awake. But they may excite in us ideas inconsistent with the nature of external material objects; and therefore with the ideas these excite in us, designing to entangle and perplex our reason. However, it will no more follow from this, that the idea of a monster, with one eye as large as a shield, many hands, and so tall that a tower might stand between his legs; with as many other deviations from the present form and stature of a man's body, as we please to add; it will no more follow, I say, that such an idea is *contradictory*, because it is not the idea of an ordinary man; than that the idea of a man is contradictory, because it is not the idea of such a monster. Both ideas are equally real, though the objects of both do not equally exist *ab extra*. It would not be a just inference, that the idea of a *Negro* is a contradictory idea, because it is not the idea of a *white man*: and the other is no better. This objection from the contradictoriness of our dreams, sounds big at first, and seems very unpromising to be accounted for; and yet it hath nothing terrible in it but the bare sound; only we are too often surprized, and grant a thing through inattention, which we should not. Nay farther, we may observe that there is no impossibility, why such a monster as is just now supposed, might not exist *à parte naturæ*. Whatever is *conceivable*, may be performed by some power; and nothing is a mark of impossibility, but a self-destructiveness in the idea; such as, that a part may be bigger than the whole. And no Being can prompt us with such an idea, whether asleep or awake. For it is at first impossible to the conception. If it were possible to conceive such an idea, the object of it might be made to exist from without. Thus these powers may endeavour to confound human reason sophistically, by surprising us through inattention, to allow that an object seen, inconsistent with another real object, is absolutely inconsistent; and to render suspected the foundations of evidence and certainty, by engaging us to consent to *false facts*, and *unreal appearances*, in the unguarded hours of sleep: But we may see through the artifice when we are awake; and it is our own fault if we take part with them then (e).

XLVI. This

(e) It will perhaps be said that all this, concerning the invidious nature of these Beings, is only a supposition. But I answer, 1. It is not a contradictory supposition, and therefore is sufficient to account for the possibility of the point objected to. 2. It is not *any* supposition, but as old as any thing whereof we have records. *Plutarch* tells us it was τῶν πάντων παλαιῶν λόγος, that there were φῦλα δαιμόνια καὶ βάσκανα, προσφθονῆτα τοῖς ἀγαθοῖς ἀνδράσι, &c. I might bring



XLVI. This imputation on the rational nature of the soul, from the inconsistency of our dreams, will thus appear sufficiently taken off, if what hath been said in several parts above be here remembered. For, first, these scenes are only inconsistent, considered with respect to objects that really exist; but not *absolutely contradictory*, as has been shewn just before. Secondly, They are not the work of the soul itself, but involuntarily obtruded upon it; and it is as passive, and as much under necessity of beholding them, as of beholding the greatest beauties in the creation. Thirdly, It hath been shewn not only convenient, *but even necessary*, upon the account of the body, that the region of memory should be covered up in sleep, so that these objects, though fantastical, must appear real. Fourthly, The soul may be made to behold the like fantastical objects, even while we are awake, and to take them for real. The objections seem to make it *a reproach on the soul*, that any Being in nature should be superior to it, or able to impose upon, or terrify it. Why should not *Brutus*, or *Dion*, have taken the visions that were offered to them for something real; since as real impressions were made on the sensory to produce them, as if the objects had existed externally? These impressions are the *marks* from which we infer the real external existence of *any object at any time*. Let a man suppose that like imaginary scenes

many instances to shew that the word *δαίμων*, as it is used by the best writers of antiquity, constantly infers this supposition; and that from hence came the words *εὐδαίμων* and *κακδαίμων*, to express a fortunate or unhappy man. I might give *Hesiod's* authority;

Τὸ μὴ δαίμονες εἶσι Διὸς υἱοί· οἱ δὲ βουλῆς,  
Ἐοῖοι, ἐπιχθόνιοι, Φόβου δὲ Στυγὸς ἀνδράπων.

But, lastly, I would beg leave to observe that this is not a *bare supposition*. For as the existence of such Beings in general, cannot be called a supposition, when it is proved by *natural phenomena*; so the *diversity of their natures* cannot be called a supposition, when it is shewn by the *diversity of these phenomena*. It is from the nature of the *effects*, that we come to know the nature of the *cause* in any case. Would it not be absurd to ascribe *hurtful effects* to a beneficent and *good cause*? and still more absurd to ascribe these effects to the very *first Cause*? And yet there is a plain necessity of falling into this absurdity, without allowing a cause of a different nature. Men do not consider that by denying secondary and imperfect causes, they load the very perfectest of Beings with all that is *mean* and *unworthy*. The truth is, they have not been accustomed to think any cause at all necessary; and therefore reckon a man extremely unreasonable to pretend to insist on the necessity of a cause to produce an effect; or of a different cause to produce an effect of quite an opposite nature.

were

were offered to him, and then weigh the matter fairly with himself: if he thinks he could not be deceived, he must suppose himself to have some supernatural faculty of *distinguishing*, which men are not endued with. But allowing he should not be imposed upon, but know the objects seen to be only imaginary; what would he think of such a vision that was thus offered to him? He must certainly conclude that *some very extraordinary cause* produced it, and perhaps would then be no less terrified than if it were otherwise. And lastly, what the soul itself does or thinks in sleep, is much the same with what it would do or think in like circumstances, if we were awake. And indeed if a man will consider the different accidents of this kind that happen to persons both while asleep and while awake, (and the latter perhaps without any previous disorder of the body) he will conceive it very possible, that our *waking thoughts* might be all as inconsistent, as now our dreams are; and our thoughts in sleep as consistent as our thoughts are now by day. *So incompetent a principle is the matter of the body, or the right disposition of that matter, to ascribe the perfection of rational thinking to!* Mr. Locke, in a place taken notice of above (f), seems to charge this as consequent upon the assertion of some of his adversaries; and yet immediately after, I think, he makes it appear to be his own opinion. He says, "This I would willingly be satisfied in, Whether the soul when it thinks thus apart, and as it were separate from the body, acts less rationally than when conjointly with it, or no: if its separate thoughts are less rational, then *These Men* must say that *the soul owes the perfection of rational thinking to the body*: if it does not, 'tis a wonder that our dreams should be, for the most part, so frivolous and irrational." Here this absurdity is first made a *consequence* of what *These Men* say; and immediately it is surmised that the quality of our dreams shews this absurdity to be fact. This is really a strange way of proceeding, to shuffle over the odiousness of an insinuation upon *others*; and in case *they* should disown it, and *that circumstance* from which he would infer it, (*viz.* that the soul thinks without being conscious of it) to endeavour to prove it, by an appearance, which he has ready at hand. *These Men* deny that the soul thinks less or more rationally, without being conscious of it; and therefore any consequence of such a position: but who is it here that appeals to the *frivolousness* and *irrationality* of our Dreams to shew, that the soul owes the perfection of rational thinking to the body? Mr. Locke

(f) Sect. 4. N<sup>o</sup> 21. Note (q).

should

should have told us what were his own sentiments of this affair; and, if it were an absurdity, shewn us how it was to be avoided; but first to endeavour to turn it over upon his adversaries, as something very unjustifiable, which therefore shewed the absurdity of their opinion, and then to endeavour to prove it, was altogether singular. Here he supposes that the soul itself produces all it hears and sees in sleep, that it thinks apart and separately at that time, and exerts the utmost perfection it is capable of, when destitute of the help of the body. How unjust and inaccurate a representation of the appearance is this!

This phenomenon of sleep and dreaming therefore, which hath been made use of to exalt the nature of matter, and depress the perfection of the soul, rightly considered shews the very contrary. It is upon the account of the body that the activity of the soul is restrained, that the region of memory is covered up, and by the means of the body that the soul is liable to be imposed upon. The opposition of appearances observable in this state, (of *fatigue* and *activity*, of *insensibility* and *life*, at the same time) cannot fail to shew us the opposite natures of the two constituent parts of our composition. If *this opposition* of appearances had been less, or our constitution more perfect, perhaps we could not have observed these different natures with so much ease and certainty. If all had been a *blank* of thought and consciousness in sleep, the *soul* would have seemed to be of the same nature with the body: if there had been *no difference* of thought and consciousness then and at other times, the *body* would have appeared to be of the same nature with the soul; nor could the *thinking principle* have been so distinguishable. There are so many useful and instructive appearances belonging to this phenomenon, that I am sure a curious, fair *Enquirer* would not wish it removed out of nature. Whatever the Sceptick may say, he seeks to *deny*, *diminish*, or *pervert* every circumstance relating to it. How uncomfortable would it be to lie down in a temporary state of non-existence! How delightful is it to think that there is a *world* of spirits; that we are surrounded with intelligent living Beings, rather than in a *lonely, unconscious Universe, a wilderness of matter*! It is a *pledge* given us of *immortality itself*, and that we shall not be extinguished all at once, nor cut off from existence. It is true, we are sometimes insulted with painful illusions: but we are at other times gratified by more friendly Powers. It is pleasant to think that infinite Goodness rules over all; this is a rational security. Were there *no other thing*, the discovery itself is worth all the pain we suffer. This ap-

pearance



pearance is offered to us as a counter-part to dead matter. I cannot repeat it too often, *Every thing is best as God hath ordered it.* Nothing so ordered is void of instruction. Who that is rational would *abuse* to be without these intimations of an after-existence? But to return and shew other reasons, why the scenes offered may be wild and incoherent.

XLVII. The *indisposition* of the body may hinder the *perfection* and *consistency* of the schemes designed. For, since these Beings immediately affect the organ, and by it the soul; some indispositions of the organ must indispose it for their designs, and marr the consistency of their schemes. We see an indisposed organ often hinders real external objects from raising the same sensations in the soul. Some indispositions of the head so affect the eyes, that the *perspective* of all objects is much marred; the images are *distorted*, or the objects are thrown off to a great distance, or they seem to *dance* and *wheel round*, though the outward impressions are the same as at other times. And hence, more probably the confusion of dreams after eating; than a *not-dreaming*, as *Aristotle* says. When the *natural* method of perception may be thus vitiated; we may warrantably say, the like must happen to the impressions made by any other cause. The rapid motion of the blood in a fever must of course disturb such *representations*; as the moving of water shatters the images it would otherwise represent entire (g). Sick mens dreams are proverbially wild. *Homer* compares a *poem* to them, where no part is of a piece with the

(g) It is worth ones while to consider the following explication of this particular from *Aristotle*, which is no less applicable here, than to his hypothesis; and which therefore I shall transcribe at large. "Ως (says he) καθαπτερ ἐν ὑγρῷ, ἔαν σφόδρα κινή τις, ὅτε μὲν εἶδη φαίνεται ἰδῶν· ὅτε δὲ φαίνεται μὲν, διεστραμμένον δὲ πάμπαν, ὥς τι φανέσθαι ἄλλοιον, ἢ εἶναι ἔστιν· ἡμιμήσαντος δὲ, καθαρὰ καὶ φανερὰ. Οὕτω καὶ ἐν τῷ καθαυδίῳ, τὰ φαιτάσματα, καὶ αἱ ὑπόλοιποι κινήσεις, αἱ συμβαίνουσιν ἀπὸ τῶν αἰσθημάτων, ὅτε μὲν ὑπὸ μείζονος ὕψους τῆς ἐνήμευς κινήσεως, ἀφανίζονται πάμπαν· ὅτε δὲ τιταμαγμίναι φαίνονται αἱ ὄψεις, καὶ τρατώδεις, καὶ οὐκ ἑρρῶμέναι τὰ εὐκταῖα, ὡς τοῖς μελαγχολικοῖς, καὶ πυρίττησι, καὶ οἰωμένοις. cap. 2. De insomn. See here N<sup>o</sup> 33. above. As this is remarkable, I shall give a translation of it for the sake of those who may not understand the original. "As any liquor (says the Author) if it be jumbled, sometimes represents no image at all, and sometimes represents the image distorted, and different from what it should be; but if the liquor be undisturbed, the image appears plain and conspicuous: so in sleep, the φαιτάσματα and impressions sometimes disappear altogether, when the foresaid motions are strong; and sometimes the visions are mis-shaped and monstrous, and the appearances but slender, and weakly impressed; as happens to melancholick and feverish persons, or those who are drunk.

rest.

rest (b). In the morning, when the indisposition that causes a confusion in the brain, is well near worn off, our dreams begin to be more clear and intelligible; as the same *Autor* observes, and our experience confirms (i). And these considerations not only answer the *present difficulty*, but explain *another*, in shewing that all the arguments for our dreams being mechanical, agree well enough with the present conclusion. What is mechanical will bear to be explained *this way*; but what is spontaneous, living, rational, will never endure to be explained *mechanically*. Again, they may at other times offer to the imagination such wild and frightful figures, as they know must naturally terrify the soul; which seems probable from the *frightful appearances* that are made to accompany the disease called the *Incubus*, spoken of before. Besides, as there may be a contrariety among themselves in their inclinations and designs, so they may industriously marr each other's representations, and impede the effects of each other's power: for there may be emulation and opposition among them, according to the difference of their natures, and extent of their power. Now, according to the observation in N<sup>o</sup> 35. since the fundamental truth is certain; it is enough to take off the present difficulty, that there is *no open absurdity* in these suppositions: not to say that there is a great deal of probability in them all.

XLVIII. As to what is said of the absurdity of supposing such Beings busied in suggesting imaginary scenes to brute animals; it is replied that, strictly speaking, this is *but a supposition*, and nothing that we can be certain of. If any one was to go about to prove it, he could not possibly do more than make it probable. The point is thus. We men have scenes of vision obtruded on the soul in sleep, where there is *life, action, nay and reason too*: the soul is unconcerned in the production of these: therefore we conclude that a living cause produces these visions, and offers them to the perceptivity, a capacity in which we are passive and necessary. Now some beasts give signs, by the motions of their bodies in sleep, that their perceptivity is

(b) *Velut ægri somnia, vane  
Fingentur species*

De Art. poëtic.

(i) *Quirinus  
Post mediam noctem visus; cum somnia vera.*

Sat. 10. lib. 1.

not vacant then, and that's all (k): for surely they do not tell us so. Whence we suppose, (with probability indeed) that they have objects also presented to them. And from this again we conclude, supposing these objects are such as could not be produced without a designing cause, and that they are forced upon their perceptivity, as we know the case is with us; they must be produced by such a cause. Here the conclusion is not more certain, than the matter of fact that leads to it: and as certain it must be. This certainty is not so great, as when we make the conclusion with respect to ourselves; for then we infer from our own consciousness and experience; but in this case from probability only, and from conjecture in part. And in this there is no apparent absurdity. As to the reasons (supposing all that is desired) why these superior Beings should be busied in this low occupation; it is not necessary to the conclusion, to pretend to know, or assign them. Yet it could not be shewn to be an absurdity, or even any thing unphilosophical, if one should say they may be confined by an overruling Power, to act under such limitations, or on such subjects; so that some of them may be tied down to illude the perceptivity even of brutes. And if so, it cannot be a small punishment, nor an ordinary degradation, to Beings of such high reach and faculties, to be forced to act in such a groveling sphere; to accommodate their representations to the capacity of a dog, or swine. More might be said; but perhaps it is better to omit these things (l).

XLIX. The

(k) *Lucræti* says, lib. 4. ver. 987.

*Venanturque canes, in molli sœpe quiete.*

*Jactant crura tamen subito, vocesque repente*

*Mittunt, & crebras reducunt naribus auras,*

*Ut vestigia si teneant inventa ferarum.*

This is so: but when he says, birds dream that the hawk pursues them, and that they fly to the sacred groves, &c. it seems rather a poetical embellishment.

*At varix fugiunt volucres, pinnisque repente*

*Sollicitant divum nocturno tempore lucos*

*Accipitres somno in leni si prælia, pugnaque*

*Edere sint perfectantes, visæque volantes.*

Ibid.

(l) If this difficulty be considered in another light, we may perhaps think it not so absurd, as at first it would appear, to allow that separate spirits may be thus occupied; when we remember that the first cause submits his infinite power, to perform the spontaneous motion of brute animals, as much as of men; as hath been shewn in the second section above; and that he



XLIX. The last objection I shall mention, is an insinuation, *that our dreams are no more than the thoughts and business of the day recurring*: or which it may be supposed the soul itself some way or other resumes, without the interposition of such a cause as is here assigned. Mr. Locke says, "The dreams of sleeping men are, as I take it, all made up of the waking man's ideas, though for the most part oddly put together (m)." Lucretius says only *ferè* and *plerumque* (n). It is true when Dionysius dreams that one of his captains killed him, and therefore puts him to death as a conspirator; this might be of a piece with his day-thoughts, he being a

vouchsafes to guide the very lowest and most contemptible species of them, immediately by his own unerring reason. For where sense ceases to guide the lower creatures, *instinct*, that is, his immediate direction, leads them to all the ends of Life and Being. However contemptibly we may treat them in our philosophy, they are a part of his creation, and immediate care. We may farther observe with respect to the dreaming of brutes, that Aristotle allows the appearance, but makes it a reason why our dreams are not sent by God. His words are: *ὅλος δ' ἐπὶ καὶ τῶν ἄλλων ζῶν ὁμιροῦται τὰς, διοπισμῶν μιν ἐν αὐτῇ τὰ ἐνύπνια, ἀλλ' ὅτι γίνονται τὰς χάριν· δαιμόνια μὲντοι ἢ γὰρ φύσις δαιμόνια, ἀλλ' ἢ θεοί.* Where it is, I think, very remarkable, that the nature of this surprizing appearance made it otherwise probable, that our dreams were suggested by some intelligent efficient, had not this particular hindered him from concluding so; but as they are accounted for here it hath no weight. The distinction *φύσις γὰρ δαιμόνια ἀλλ' ἢ θεοί* is an affected way of speaking; our dreams are truly *δαιμόνια*, in the proper sense of the word. Nature is *θεοί* in right philosophy; but a fatal or necessary constitution of nature (if that be not contradictory) is not so much as *δαιμόνια*. He hath elsewhere another reason why our dreams are not sent by God; because they are only *ἀγνοίαι ἀνθρώπων*, and *οἱ τυχόντες*, that have true and significant dreams (see his Book Πρὸς τὴν καὶ ὕπνου μαντικὴν.) But undoubtedly, if a poor man hath a true, significant dream, it must have a sufficient cause, as much as if his pupil Alexander had dreamed it.

(m) Book 2. cap. 1. sect. 17.

(n) Et quoi quisque ferè studio devinctus adherat,

In somnis eadem plerumque videmur obire:

Causidici causas agere, & componere leges:

Induperatores pugnare, ac praelia obire:

Nautæ contractum cum ventis cernere bellum:

Nos agere hoc autem, &c.

Lib. 4. from ver. 959 to 982.

It seems he himself wrote over again his Book *De rerum natura* in his sleep. Farther on, he says, sometimes after the publick shows, the spectators dream over again all the theatrical performances, dances, musick, &c.

suspicious,

suspicious, bloody tyrant (p). But notwithstanding this, it argues much inattention to be able to suppose, that the force put upon the soul in such a scene, was the work of the soul itself: or that the spontaneity, life and design in such a vision, was not the work of a living, designing cause. Or though we could some way or other imagine, that Caligula fancied, he was to be assumed to a share of the government of the Universe; and therefore, dreamed before his death, that Jupiter kicked him down from his throne (p); the same exception is to be made to it. But was it ever before in Aftayages's waking thoughts, or of a piece with them, *ἐκ τῶν αἰδοίων τῆς θυγατρὸς Φύλαι ἄμπελον*, that out of his Daughter there grew a Vine, which over-shaded all Asia? Or again, that she discharged such a quantity of urine, as made a general inundation in it? Or when Lucullus dreamed, that one Autolycus desired to speak with him, a name he had never heard of before, and whose history he learned only next morning from the inhabitants of the place; can it be said that any of his waking thoughts had suggested this to him? We are placed in circumstances every night, and see things, which, for the newness and strangeness of them, we are surprized how they could enter our fancy. This observation of Mr. Locke's is so far from being exact, that if he had made just the contrary observation, it would have been equally true: which is remarkable enough in a man of his accuracy and judgment. Now, our natural curiosity should rather have prompted us, I think, to search out the cause of these new and strange visions: allowing that the soul might some way or other, unknowing to itself, turn over all objects in sleep, formerly familiar to it; nay and terrify itself with some of them. Or if our curiosity had not led us to examine the foreign sort of dreams, but rather to enquire into the nature of the other kind, yet how could the soul, upon Mr. Locke's own principles, form to itself in sleep a scene of our waking actions and thoughts, and the man be still ignorant of it, without being two distinct persons? And since they are the thoughts and actions of us rational Beings, could they be introduced to the soul again, but by some rational and intelligent cause? If a Lawyer, to take one of Lucretius's instances, answers the objections of the opposite party in his sleep, and if he made these objections

(o) Plutarch says of him—*Καὶ Μαρτύας δὲ τίνα τῶν προηγουμένων ὑπ' αὐτῷ καὶ τεταγμένων ἰφ' ἑννοίας ἀνέβη, δοξάσας κατὰ τὰς ὑπὲρ σφάττων αὐτὸν· ὡς ἀπ' ἑνὸς μετεμνηνῆος καὶ διαλογισμῶν, τῆς οὐσίας ταύτης εἰς τὸν ὕπνον αὐτῷ παραγενομένης.* He thought, he himself could not have had such a dream, unless Marlyas had really plotted against him to take away his life.

(p) (Vid. Sueton. in Calig.)

against himself, should he not be as conscious that he made them, as that he made the answers to them? If objections are made, the efficiency of a rational intelligent cause is interested, from the nature of the instance: and if the person himself answers the objections, the soul reasons sometimes in sleep, or *hath ideas under the conduct of the understanding.*

L. That these separate Agents should sometimes represent to us familiar and known objects, and immediately after something new and strange, hath nothing inconsistent in it; it is really rather an argument for, than an objection against the conclusion here made. If all our dreams were of one sort, more might be alledged than can be, as things now are. One may farther say, if these Beings suit the visions they offer us, to our profession, age, complexion, business; they suit them also to our passions, evil habits, vices. Men have been sometimes in danger of killing a real friend, instead of an imaginary enemy. *Lucretius* tells us maculating dreams accompany youth (q). The covetous, revengeful, lascivious, have thus opportunities thrown in their way, of indulging their vicious inclinations, without restraint from men, or human laws. And it is in this respect we are most exposed to the power and cunning of these Beings. We ought then to keep our bodies regular, and our minds pure, that we may not afford them a handle. *Democritus* advises to pray, that only good and propitious visions may be formed to us in our sleep out of those fortuitous films and simulacra, which constantly rise from the surfaces of material things, and float up and down in the air (r). But is it not wonderful what a man can pray to, who believes there is no other thing besides matter; neither God nor Spirit? It is natural for such a creature as man to pray, when he is in want, fear, distress; nay, I think it is impossible not to pray at such times; but it is shocking to pray to chance,

(q) *Tum quibus ætatis freta primitus insinuantur,*

*Semen ubi ipsa diis membris maturata creavit*

*Convenerunt simulacra foris, et corpore quoque*

*Nuntia præclari volūtis, &c.*

Lib. 4. ver. 1024.

(r) *Δυσχερὲς γὰρ τῷ γὰρ εὐχεσθῆαι φησὶ δὲ ὅτι, εὐλόγηται ἰδέσθαι τυχάνουσαι, καὶ τὰ συμφορὰ καὶ τὰ χρητὰ μᾶλλον ἢ τὰ πειράζοντα, ἢ τὰ φεῖλα καὶ τὰ σκία συμφορὰται, [certainly to be in continual dread from chance, which neither prayers nor tears can bend, is the worst kind of Deisidemonia; as *Plutarch* observes in the following part of the sentence] λόγος οὗτ' ἀληθῆς, καὶ πρὸς ἀπαρτίαν ἐκφάντα δυσδιανοίας αἰς φιλοσοφίας καταβάλλον.* In *Æmil.*



or to address *fatal necessity*. Is it not better philosophy to pray to that Being who keeps these spirits in subjection, that their malicious designs upon us may be frustrated?

LI. We may next take notice of the solutions of this appearance, given by those who taught the materiality of the soul: and after what hath been said just now, perhaps no consideration can better shew us the necessity of assigning a living intelligent cause for it, than to review the wild and unsupported things these men have said to explain it, without the help of such a cause. This is the chief design and subject of *Lucretius's* 4th Book *De rerum natura*; in the first part of which he endeavours, in his own way, to shew the manner by which external objects act upon the senses, and produce perception in the mind; resolving to shew how this is applicable also to the perception excited in us in our dreams. He supposes that from the surfaces of all material things there are continually flying off thin membranes, pellicles, or similar surfaces (s). These he calls *simulacra*, *membrana*, *cortex*, *effigies*. Colours themselves he makes to be thin coloured pellicles, incessantly issuing from the coloured body, and tincturing whatever they fall upon with their own die (t). Such *tenuēs, consimilisque formarum effigies* cannot be observed singly, he says; but by their constant flux a number of them may, especially from a

(s) *Nunc agere incipiam tibi quod vehementer ad has res  
Attinet, esse ea quæ rerum simulacra vocamus;  
Quæ quasi membranae summo de corpore rerum  
Direptæ volitant ultero citroque per auras:  
Atque eadem nobis vigilantibus obvia mentis  
Terrificant; atque in somnis, cum sæpe figuras  
Contuimur miras, simulacraque luce carentum.*

Ver. 34.

And again,

*Dico igitur rerum effigies, tenuisque figuras  
Mittier ab rebus, summo de corpore earum;  
Quæ quasi membrana, vel cortex nominanda 'st;  
Quod speciem, ac formam similem gerit ejus imago,  
Quojuscunque cluet de corpore fusa vagari.*

Ver. 46.

One might ask here by the by, Whence came these *simulacra luce carentum*, after the bodies were burnt or buried? The surface of the urn only or tomb, should have appeared!

(t) *Verum de summis ipsum quoque sæpe colorem, &c.*

Ver. 72.

*speculum*

*speculum* (u); but that upon wood, stone, &c. they are shivered and broken (v). Hitherto this is not much amiss; at least there is fancy and poetical imagination in it; only he seems to be under some difficulty when he would prove that there are thin surfaces thrown off by bodies, because *grasshoppers* and *serpents* cast their *exuviae* at certain times of the year; and because smoke, vapour, flame, rise from bodies (x). Besides, he is not aware that, if these pellicles fly off in the dark, (for it is then we see them in dreams) colours and objects, must be seen as much, and as well in the dark, as in the light; and if they fly off incessantly, they must be equally visible to us while awake as while we sleep. But then this is not enough, that these *similar surfaces* are incessantly emitted from all bodies; but farther many *simulacra rerum* are spontaneously generated, which do not rise from any body; these are still floating up and down in the air; still changing; and by odd combinations and encounters, make up the shapes of *Giants*, *monsters*, and *wild beasts*; no otherwise

(u) *Sunt igitur tenues formarum confusisque  
Effigies, singillatim quas cernere nemo  
Cum possit; tamen assiduo crebroque repulsi  
Rejeda, reddunt speculorum ex aequore visum;  
Nec ratione alia servari posse videntur  
Tantopere, ut similes reddantur quoque figura.*

Ver. 103.

(v) ——— *Sed in aspera saxa,  
Aut in materiem ut ligni pervenit, ibi jam  
Scinditur, ut nullum simulacrum reddere possit.  
At cum, splendida quæ constant, opposita fuerunt,  
Densaque; ut in primis speculum 'st, nihil accidit horum.*

Ver. 148.

(x) *Principio, quoniam mittunt in rebus apertis  
Corpora res multæ; partim diffusa solutæ;  
Robora seu fumum mittunt; ignisque vaporem;  
Et partim contexta magis, condensaque; ut olim  
Cum veteres ponunt tunicas æstate cicadæ;  
Et vituli cum membranas de corpore summo  
Nascentes mittunt; & item cum lubrica serpens  
Exiit in spinis vestem: ———*

*Hæc quoniam sunt; tenuis quoque debet imago  
Ab rebus mitti, summo de corpore eorum.*

Ver. 52.

than we see strange figures and shapes in the clouds (y). Farther on he explains this particular, that these *simulacra* sometimes spontaneously exist, and sometimes arising in parts, from the bodies of real living creatures; they happen to encounter in the air, and produce monstrous compounds between them; as the *surfaces* arising from the bodies of a man and a horse, by sticking together make up the *simulacrum* of a *centaur* (z). And thus he hath got a fund of these *frigidus appearances*, fit for any purpose in which he pleases to employ them. Then he proceeds to account for vision, and the appearances of *specula*, ingeniously enough from these principles (a). But his subject goes not on so smoothly with him, when he comes to sounds. He is aware that in dreams we hear sounds, voice and speech, as well as see images, and moving figures; and since voice and sound have a corporeal nature to impel the sense, which truth he proves, because some words hurt the throat while they are pronounced (b), he depends upon his *Reader's* kindness, to sup-

(y) *Sed ne forte putes ea demum sola vagare*

*Quaecunque ab rebus rerum simulacra recedunt:*

*Sunt etiam quæ sponte sua gignantur, Et ipsa*

*Constituuntur in hoc cælo, qui dicitur ær;*

*Quæ multis formata modis sublimi feruntur;*

*Nec speciem mutare suam liquentia cessant;*

*Et quousque modi formarum vertere in ora.*

*Ut nubes facili interdum concrevere in alto*

*Cernimus.*

Ver. 130.

(z) *Omne genus quoniam passim simulacra feruntur*

*Partim sponte sua quæ fiunt ære in ipso;*

*Partim quæ variis ab rebus cunque recedunt:*

*Et quæ consistunt ex horum facta figuris.*

*Nam cerid ex vivo Centauri non fit imago,*

*Nulla fuit quoniam talis natura animalis.*

*Verum ubi equi atque hominis convenit imago*

*Hærescit facile extemplo.*

Ver. 740.

(a) *Nunc age cur ultra speculum videatur imago, &c.*

Ver. 270.

(b) *Scilicet expletis quoque janua raditur oris*

*Rauca viis; Et iter lædit, qua vox it in auras.*

Ver. 535.



pose that sounds may have their *cortices* and *membranae* also, leaving him to fancy as well as he can (having thus set his imagination at work) how the *images* and *spectres* of words and sentences, may hover up and down in the air, till he fall asleep, and then discharge themselves upon him in dreams.

III. These foundations being laid, he comes to the solution of dreaming, which is now an easy affair: for these *spectres* and *simulacra* of corporeal things, constantly emitted from them, and floating up and down in the air, come and assault the soul in sleep (c). And as for *chimeras*, and other monstrous representations, these he had prepared beforehand, (ver. 430. & seq.) All this is well enough, if he had but taken care to tell us, how these *simulacra*, such *slender pellicles*, get in whole and entire to the breast, or heart, which he makes the seat of the soul, as hath before been observed; for he allows they are shattered, when they fall upon any rugged, uneven surface: and in giving the difference between sounds and images, he says, though a sound may get whole and entire through any chink, or crany, yet an *image* or *simulacrum* cannot: but must be ruined and broken, if it hath not room to enter all at once (d). But leaving many inconsistencies untouched; let us take notice of the shifts *Lucretius* is put to, in accounting first, how these *cortices* of bodies should have motion and life; and then, how they should act with design, reason, and intelligence. Here he cannot so much as allege his efficient cause, chance; for all this must be done in an instant: there is not an eternity of time, wherein these pellicles may dance about, and

*Omne genus motus, & cæcis experiundo;  
Tandem deveniant in talis disposituras.*

Lib. I. ver. 1025.

(c) *Nunc age; quæ movent animas res, accipe & unde  
Quæ veniunt, veniant in mentem, percipe paucis.  
Præcipio hoc dico, rerum simulacra vagari  
Multa modis multis*

Ver. 726.

(d) *Nimirum quia vox per flexa foramina rerum  
Incolumis transire potest; simulacra renuant:  
Perfunduntur enim, nisi recta foramina tranant.*

Ver. 603.

till

*Matter and Mechanism not the cause of this Appearance.* 281

till at length they casually form the vision to be presented to the soul. As to the first; how these fluctuating films of bodies should have life and action, so as to represent a regular dance to the soul in sleep—

*Brachidque in numerum jactare, & cætera membra :  
Nam sit, ut in somnis facere hoc videatur imago.*

Ver. 773.

He says this is not wonderful; for it is not the same image that performs this: but that there are as many different images, as we fancy there are different postures of the same image: that when one of these *exuviae* of bodies hath appeared, and represented one posture, it is destroyed, and another different one comes, and represents the second posture, which we still fancy to be the first; and just so, a third case, or *thin sheet of matter* appears in a third posture, &c.

*Non mirum est simulacra moveri ; ———  
Quippe ubi prima perit, aliisque est altera nata  
Endo statu ; prior hæc gestum mutasse videtur.*

Ibid.

Grave men perhaps will be angry with me for transcribing these absurdities: and it would not, I own, be excusable, if it were not to shew what kind of philosophy hath been embraced, rather than the existence of separate spirits should be acknowledged,

*——— Ne sorte animas Acherunte reamur  
Effugere ; aut umbras inter vivos volitare :  
Neve aliquid nostri post mortem posse relinqui, &c.*

Ver. 41.

For, as appears from what was lately said, all this is the doctrine of *Democritus* (e). And certainly, no words could so well demonstrate to us the folly

(e) *Aristotle* says, cap. 3. *Περὶ τῆς κατ' ὑπνοῦ φαντασίας. Ταῦτα δ' ἂν εἴη μᾶλλον, ἢ ὅσπερ λέγει Δημοκρίτης, ἰδῶλα καὶ ἀπορροαὶς αἰτιώμεναι.* What *Aristotle* substitutes instead of this, is his own solution; where, if we consult the place, we shall see no less egregious trifling. “Because the air is not ruffled with wind in the night-time, the *κινήσεις* have more effect, and the dreams are fitter to be divined from!”

of attempting to account for *this various, wonderful, living appearance* (so to speak) as remarking upon absurd fictions. And, to save the trouble of repeating it often, let me observe, that the *Authors* of all the other *hypotheses* would be as ridiculous, if they were as minute. They say some general thing or other; but dare not offer to apply their solutions to any one instance. As to the second difficulty, Why these *empty sheets of matter* should act with *reason and intelligence*, instead of pretending to solve it, he turns another way, to ask questions concerning it, such as, Whether we may not suppose that they wait the nod of the will?

*Anne voluntatem nostram simulacra tumentur?*

*Et simul ac volumus nobis occurrit imago?*

Ver. 782.

Or, when they represent some theatrical performance, Whether we are not to think, that these *cortices* are *learned*, and *full of art*?

*Scilicet arte madent simulacra, & docta vagantur,*

*Nocturno facere ut possint in tempore ludos?*

Let any one in this place reflect on the necessity that forced *Lucretius* to make these extraordinary suppositions. And then let me ask a *Sceptick*, who has ever so little ingenuity left, if it be not a strange attempt to account for life and reason mechanically. To mention only one thing more; he crowns all, in his accounting for spontaneous motion, and volition, by these surfaces. He says, the *surface of walking* (I know no better *English* word for it) beats upon the soul, excites the will of walking in it; and so protrudes the whole corporeal bulk.

*Nunc qui fiat, uti passus proferre queamus,*

*Cum volumus, ———*

*Et quæ res tantum hoc oneris protrudere nostri*

*Corporis insulerit, dicam: tu percipe dicta.*

*Dico animo nostro primùm simulacra meandi*

*Accedere, atque animum pulsare, ut diximus ante.*

*Inde voluntas fit.*

Ver. 875.

LIII. Others,



LIII. Others, to avoid these absurdities, have sought the solution of this appearance, from the *mechanism* of the body only. Mr. Hobbes endeavours to account for it thus, chap. 2. of his *Leviathan*, concerning the *imagination*. "When a body is once in motion, it moveth (unless some-  
" thing else hinder it) eternally; and whatsoever hindereth it, cannot in  
" an instant, but in time, and by degrees, quite extinguish it: and as we  
" see in the water, though the wind cease, the waves give not over rolling  
" for a long time after; so also it happeneth in that motion, which is made  
" in the internal parts of a man, then when he sees, dreams, &c. For  
" after the object is removed, or the eyes shut, we still retain an image  
" of the thing seen, though more obscure than when we see it." —  
So again in chap. 45. he says, "And the motion made by this pressure,  
" continuing after the object which caused it is removed, is what we call  
" *imagination*, and *memory*, and (in sleep, and sometimes in *great distem-*  
" *pers of the organs*, by sickness, or violence) a *dream*." Thus he makes  
dreaming to be the *pressure made in the organ*, continuing, or repeated in  
sleep. But this is so shamefully poor and unsatisfying a cause of this  
appearance, that it accounts for nothing; and it is almost loss of time to  
stay to shew the lameness of it. Every thing said, is as easily denied as  
affirmed, and with a hundred times more probability. How comes this  
motion to be *begun again*, after it hath been *stopped*, by so many inter-  
vening, various, contrary motions? Though a moving body without ex-  
ternal impediment, will always move on; this does not prove that it will  
move on through all the impediments it can meet with: or that it will  
take up a motion once extinguished, and that after so long an interrup-  
tion. There is no circumstance common to a body moving in *vacuo*,  
(of which this axiom is true) and the internal parts of a man's body. A  
pendulum moving freely, will not move half a night; why should the  
internal parts of a man's body, crowded, obstructed, move the whole night?  
nay, why should they move most freely in the morning? It had been alto-  
gether as satisfactory to have said, that a *tennis ball*, when a motion is *im-*  
*pressed* upon it by a *racket*, and then *destroyed* by the contrary force of  
another racket, will, when that contrary force is spent, begin and con-  
tinue the first impressed motion: or that a *harpsicord*, when a tune is first  
played upon it, and then a dozen of other tunes, will, when the motion  
of them all is stopped, begin the first tune of itself again. Besides, ac-  
cording to this account, either the *last impressed motion* should be first re-

newed, after we fall asleep, and we should dream over the day-objects retrograde ; or *all the waking motions should be renewed in order*, and we should do every thing twice over ; or the *strongest only* should be renewed. But this is ridiculous, and contrary to fact. We see things in sleep that have not been in our waking thoughts for many days, or years before, perhaps never. And what can be said of these from this solution ? Or perhaps we see something in a dream, that is familiar to us ; and immediately after a thing, that we never thought on before : why are these joined together ? or how can a motion be continued, that is begun only for the first time ? This is so unperforming an hypothesis, that it answers for nothing. He brings in cold, as has been observed above, to breed dreams of fear ; and heat, those of anger. Why doth he not apply this hypothesis of his, to account for *Brutus's* vision ? Or if that was too hard, for *Calpurnia's* the night before *Cæsar* was killed ? Or at least for some common instance ? Every *Hypothesis-Maker* makes a trial of his hypothesis, to shew how well it does. Lastly, If we hear some kind of sounds long, they will continue in the ears it is true, for some time after, while we are awake ; but are broken off immediately in sleep ; which is directly against Mr. *Hobbes's* observation.

LIV. It is to be remarked, that this Author hath given some dreams a *bigger original*. In the fortieth chapter of this Book he writes thus. " The father of the faithful, and first in the kingdom of God by covenant " was *Abraham*. For with him was the covenant first made ; wherein he " obliged himself, and his seed after him, to acknowledge and obey the " commands of God ; not only such as he could take notice of, (as " moral laws) by the light of nature ; but also such as God should in " a *special manner* deliver to him by *dreams* and *visions*." — And, having in a few words insisted, that there was no need of a particular contract, to add force to the obligation of moral laws, he continues — " And therefore the covenant which *Abraham* made with God, was to " take for the commandment of God, that which in the name of God, " was commanded him in a *dream* or *vision* ; and to deliver it to his " family, and cause them to observe the same." All that can be said to this, I think, is, that he who wrote thus, should not have advanced such an hypothesis, for solving the appearance of dreaming in a mechanical way. Were these dreams *the motions only of external objects impressed on the senses, and continued after the objects themselves were gone* ? A *monitory dream*

dream or vision, as to the natural manner of its production, is so like another dream which is not monitory, that it is strange any one should assign such opposite causes, for effects every way alike, except in relation to certain events which are to follow. Nor is it less surprizing, that, after what he has written in many places, he should still conclude with so much assurance, and so little argument, that the soul of man, all spirits, and God infinite in all perfections, are but material things (as hath been observed above.) This is but a poor remedy for the jargon of the schools which he complains of.

LV. This last solution of dreaming is taken from Aristotle's; and so little different from it, that the same considerations shew them both to be quite foreign to the purpose. Aristotle says, that the objects of sense produce sensation in every one of the organs; and that this sensation, or perception [πάθος] remains in the organs, not only while the objects act, but after they are gone (f); illustrating his account, with the examples of those, who by long looking on the sun, see nothing when they turn away their eyes, διὰ τὴν ἔτι ὑποῦσαν κίνησιν ἐν τοῖς ὀφθαλμοῖς, ὑπὸ τῷ φωτός, and of those, who by looking long on any colour, see all objects of that colour; and of those who think every thing moves, after having long looked on running water (g). It were to be wished, by this solution of his, that he had tried to explain any common instance of dreaming, such as that of the man with the sword, pursuing, and threatening

(f) Τὸ δὲ εἶναι τὸ ἐνύπνιον, καὶ πῶς γίνεται, ἐκ τῶν περὶ τὸν ὕπνον συμβαινόντων μάλιστα διὰ γρηγορήσεως· τὰ γὰρ αἰσθητὰ καὶ ἑκαστὴν αἰσθητήριον, ἡμῶν ἐμπνέουσιν αἰσθάνειν· καὶ τὸ γινώσκον, ἐκ αὐτῶν πάθος, ὃ μένει ἐν τῷ αἰσθητήριῳ, ἐκ γρηγορήσεως τῶν αἰσθημάτων, ἀλλὰ καὶ ἀπὸ τῶν αἰσθημάτων. α. λ. cap. 2.

(g) After which he observes that violent sounds render men thick of hearing; and that strong scents, acting long on the organ, blunt the quickness of that sense afterward; γίνεται δὲ ἀπὸ τῶν μεγάλων ψήφων δύσκαφοι· γίνονται καὶ ἀπὸ τῶν ἰσχυρῶν ὀσμῶν δύσδομοι· καὶ ἐκ τῶν ὀσμῶν. But all this is only going about with little distant similitudes, and begging men not to be over difficult to be persuaded: a common shift when men would account for some great thing, from unsatisfying principles. Lucretius is remarkable for this art through his whole book; a small resemblance, which rather doth not contradict, than confirm, serves for a proof with him. Yet, I know not how, he came to venture to be so particular in this case: charmed, I suppose, with the poetical imagination; and therefore he appears so ridiculously absurd: but, as has been said, if other Authors had offered to apply their solutions minutely to particular cases, we should have seen abundance of as silly and ridiculous suppositions. Let any one make the trial upon his examples.



us; or that he had taken notice of that *diversity of consciousness*, that is in the rational part of the *phantasia*; or of that *spontaneity*, which is in the animate part of it (see N<sup>o</sup> 25.) so different from what the soul itself thinks and does, as he himself observes; or that he had explained how such *force and violence* is used upon the soul, by *this remainder of external impressions*, which should seem familiar to it. Surely we may say that these motions, excited in the visory nerves, by the *sun*, or *colours*, or the *running water*, are now quite stopped, when we see all other objects again, as we saw them before; and therefore that it must be so *a fortiori*, with respect to other objects, which do not make such strong impressions. Besides, such a *confusion* as remains even during the time they last, could never be the cause of that *distinct vision* we have in sleep; nor therefore any *remainder of motion* the cause of *distinct perception* then. Nor could we deduce the *infinite variety* of dreams, from this *uniform, mechanical cause*. Nothing new could then ever be offered to the soul in sleep; all being the remains of familiar waking impressions. Could ordinary common objects, occasion the appearance of objects we never saw before? With the leave of so great a man, would it be at all more absurd to say, that the *shadow* of Coriscus's body (*b*), which only moves, as his body moves, may become a *living intelligent agent*; than to say, that the impressions made by Coriscus's actions on the sensory while awake, may perform other *spontaneous, rational actions*, of which Coriscus himself never gave a copy? *Lucretius's simulaera* are more entertaining; nor really are they less satisfactory than this dry notion. When a *school-boy* asks his *Master* something, that happens to be too hard for them both; the *Master* pretends to give him a reason, and the *boy* is put off, thinking he is not yet advanced enough to understand such deep things: but the *Master* hath not that satisfaction in his own mind, which arises from knowing the case, and his having made another understand it. So, I think, it is with *Democritus, Epicurus, Aristotle*, and their several followers; whatever these men said to amuse others, they had not the pleasure to believe themselves.

LVI. Before we leave this subject of our dreams, there is one circumstance more to be observed in them, wonderful enough; which might be of use to us, if we could enter more into the nature of it. I shall

(*b*) De infomniis, cap. 2.

only endeavour to express the appearance itself, and take notice of a truth, which seems naturally to follow from it: perhaps some other hand may not disdain to pursue it. It is this: In our sleep *persons* and *objects* are frequently presented to us, with the *newness* of which we are no way surpris'd, because we seem to know them. They are represented as known and familiar objects, and we allow them to be such, being acquainted with them at first sight; though we know not how, nor where, such familiarity was contracted: for on awaking, we wonder how we thought we knew them, or entered so easily into their designs and business. We frequently think we come into a *company*, where we seem to know what we came for, and what is every one's part of the business in hand: or we are all of a sudden engaged in circumstances, and a course of action, which appears to us to be the consequence of former action, which we readily own we have been concerned in: A man imagines he is in danger or trouble, because he did such things formerly, of which he seems to know himself guilty: he is stung with grief and remorse for crimes he allows he hath perpetrated years before; or he is praised for great and virtuous actions, of the merit of which he seems secretly conscious. In a word, there is this *notable difference* between what we see while awake, and what we see in sleep; that if we see any thing new while awake, we know that it is new to us, and find that difficulty and uneasiness in us, which attends ignorance and unacquaintance: but oftentimes it happens, though we see a thing for the first time only in sleep, yet we do not think it *new* to us, but familiar, and *not new*. This, I believe, will be found to be every one's experience, and an ordinary qualification of our sleeping thoughts. Any one will be surpris'd when he observes that *this knowledge*, which the soul is prompted with in dreams, of the persons and objects then offer'd to it, vanishes as soon as the senses are opened, and external objects begin to act through them; as if the recovering our former experience of the things in real life, darkened and chased away the *other*; or as if these two were inconsistent together.

LVII. I shall venture to give an instance or two of this kind of dreams, to help the better to explain what I mean, the exactness in the relation of which may be depended on: or, it is the same thing if we suppose them imaginary examples, made to be reasoned from; provided there be nothing improbable or prodigious in them: if it were possible for any instance in this subject

subject could be such (i). A person dreams, for instance, that he hath lived for a considerable time in a state of marriage with a certain woman, who had been dead many years before; and though he knows not the beginning of this affair, or how it came about, yet he allows it to be so, remembers *some circumstances* of their past life together, and seems to know the situation of their circumstances at present, as if he had been led into it *from the experience of some years*. Again, another hath this scene presented to him in his sleep. He fancies *a person reads to him certain sentences out of a book*, and that neither the *person reading*, nor the *subject read*, are unknown to him, but that he is familiarly acquainted with both; insomuch that he knows beforehand, what the other is to read to him, and the design of the writer: and hath his remarks ready to offer upon it, as if he had perused this *visionary Author* long since. And upon awaking, he remembers some of the words read to him, and something of what he had to observe concerning it: but the scene gradually disappears; and the more he seeks to recover his own sleeping arguments, and the other's reasons, by the help of his *waking memory*, the more they are darkned by that very endeavour. One under this disappointment will be vexed that he did not dream on, or that any thing should disturb him, while he is endeavouring to catch the shy remains of his vision, or, if possible, to replace himself in the same state of consciousness. Here is a whole scene (or small consistent system) of instantaneous knowledge, which might be concerning any one assignable subject, as well as another, (for the prompting us with a ready familiarity with any knowable subject, without our own pains in acquiring it by the ordinary methods, is the only difficulty in the appearance) and which might have been continued, I think, to any length, by the same *Power* that began it (k).

## LVIII. This

(i) Lucian says, — "Εἰ δὲ παράδοξα ἴκασι, μὴ ἀπιστήσῃς. Σουμνατοποιοὶ γὰρ ὄντες. Cicero says, *Nihil est magnum somnianti*, as above.

(k) I beg leave here to endeavour to take off a particular objection against the preceding part of this Essay, but urged chiefly against the subject of these two last paragraphs. It is said, "The solution I have given, and especially what I mention in this place, makes dreams mere *enchantment* and *Rosicrucian-work*, which it is absurd to admit into philosophy and among *natural appearances*; and that upon this account, we see Men have always chosen to explain *the phenomenon* another way." But with much submission, I desire those who make this objection, to review the *appearance itself* once again; and then let them say, Whether I have misrepresented it: whether it is not really what may be called *enchantment* and *Rosicrucian-work* in itself, and abstracting from any solution; and whether this *enchantment* be not a true



LVIII. This is the appearance. And it seems inexplicable to our present philosophy. The objects of sense, to speak only of these, leave an impression upon the organ by acting: this the soul applies to, and consults, when it would consider the objects themselves, now absent. When they *act again*, if the first impression be not quite worn out, they re-touch and strengthen it; and the soul becomes percipient, not of a new impression, but of an *impression renewed*: for the last impression is perceived congruous to, or coincident with the first, if I may so speak. Hence the

and *real phenomenon*, actually exhibited in nature. Let it be considered, that this sort of objection must of necessity be levelled, not against any solution, but the appearance itself, as it stands in nature; since it is certain that, if there be any thing which can be called *enchantment* or *Rosicrucian-work*, if that be not contradictory and absolutely impossible, this *appearance* is such in the literal meaning of the word. And if it be a common and constant appearance in nature, how can it be absurd to admit it into philosophy, or allow it a place among *natural phenomena*? Hence *my solution* cannot make it *enchantment*, it being *such* in itself antecedent to *any solution* that can be given. If it be meant that, although it be such as is here represented, we should, nevertheless, endeavour to account for it in some other way, or else let it quite alone. I answer; As to the accounting for it any other way, I am not able; let any one try it who pleases. With what success it hath been accounted for in all the mechanical ways hitherto attempted, I leave the world to judge. And as to letting it quite alone, I did not certainly go out of my road to find it, but had it placed directly in my way, by *those Authors* who had treated of it before. It is objected as a *reproach* on the rational nature of the soul, insisted on by *Materialists*, and pompously accounted for as an *effect* of matter and mechanism. All this being inconsistent with the inertia of matter, and the account of mechanism which I have given, forced me to engage in this difficult, abstruse subject. And if what I have advanced concerning it be just, there can be no harm done; only men will be obliged to alter their opinions a little, and that to the right side; but if it should be wrong, I am not quite so foolish, as to imagine it can pass. Nor is it to be supposed that a subject of this kind will be *let quite alone*: whoever thinks he can make any advantage of it, will bring it into his side of the controversy. It was this way probably that *Democritus* brought it first into the controversy, observing *Homer's* authority so prevalent on the other side; though *Homer* spoke of it as nature pointed out, without being of any party. But ever since, *these Men* have always brought it into their side of the controversy.

But after all, do not *those* who are least willing to admit of *enchantment* and *Rosicrucian-work* among the *appearances* of nature, find themselves so enchanted, deluded, imposed upon every night? Have they not experience of the *force* and *efficacy* of this *art*? If they have not experience of it, they are proof, it seems, against the cause of this phenomenon, whatever it be, whether *matter* and *motion*, or *immaterial Agents*; and if they are not proof against *that cause*, to what purpose is it to dispute about the *name*, while they own the *thing* itself? Besides, has not every *Author* who treats on this subject, assigned more wonderful instances than I have ventured to give? And is not this, first to *own* the power of the cause exerted in the effect, and then to *disown* it

the soul perceives that object with memory : for memory (as we are passive in it) is only a thing's being brought into the perception, with a *secondary* or *concomitant* perception, which distinguishes it from a new perception, and makes it appear only a *perception renewed* : or that it was there once at least before. Accordingly, the oftener a thing hath been in the perception, still accompanied with this *secondary perception*, the stronger the memory of it is ; for the first impression is still made more lively and lasting : and on the other hand, when the first impression is almost worn out, this secondary perception is dark, and memory weak ; and when an object

again, by giving it a false name? It must be preposterous to endeavour to *sink* the cause, and *exalt* the effect at the same time. Is it not inconsistent in *Cicero*, when he would treat of every thing that is noble and sublime ; when he would explain the constitution of the *Universe*, the order and motion of the *heavenly bodies* ; when he would speak of the nature of the *soul*, and of the infinite *Fountain of all Being* ; in a word, when he would express the noblest sentiments that can enter into the mind of man ; to deliver all under the form of a Dream, and yet elsewhere to say—*Omnium somniorum eadem est ratio, &c.* ? Either some dreams have a higher original, or he *degrades* his *subject*, by dressing it up as a dream. On his supposition, it must have been as *probable*, and even *decent*, to have said, all this was the *visions of a man in a fever*, as the *Dream of a Scipio*. This is confessing one way, and denying another.

As to what I observe concerning dreams in these two last paragraphs ; viz. *That in them we are often prompted with an instantaneous knowledge of things we never thought of while awake, and a ready familiarity with objects altogether new* ; I must refer to men's own experience for the truth of it. I cannot indeed bring an authority from any *Writer* on this subject whom I have seen, to vouch the justness of this observation ; but if it may be determined by *experience*, authority will not appear absolutely necessary. We seem to know a *person* in a Dream, and the *character* he bears, at first sight ; or the *circumstances* he is in, and his *inclinations* to us ; though on awaking, we can find nothing in our former knowledge that can agree to him. We *rarely admire* any thing then for its *novelty*, and seem never to be uneasy for want of information, let the circumstances be ever so new ; though we should certainly be uneasy in a *waking state*, till we had informed ourselves about every thing we saw. In short, we enter so readily and easily into every thing heard and seen while we sleep, that nothing surprizes us, merely because it is strange and new. And this itself seems surprizing and wonderful, if we compare it with the way how the mind is *differently* affected, while we are awake. It is true, they who ridicule or despise this whole appearance, and every circumstance observable in it, as below a philosophical consideration, may perhaps be dissatisfied ; but that is not to be prevented. It is notwithstanding, a *real phenomenon*, and this a *real* circumstance of it ; and since some of the most celebrated Authors, as *Aristotle*, *Lucretius*, &c. have treated it in a philosophical way, the *ridicule* or *contempt* should fall upon them first ; unless it be *meritorious* to exalt the powers of matter and mechanism, as they have done, and *ridiculous* to dissent from them.

But let me seriously ask, If all that I contend for were true, would men be in a worse condition, than if *matter*, and *unguided motion* performed all that is done in the Universe ? This

*Matter and Mechanism not the cause of this Appearance.* 291

object hath been long out of the perceptivity, so that the impression is quite cancelled, it is as new to us, as if it had never been there before; because it is entirely a new impression, not an impression renewed. Hence it is that many casualties which affect the sensory, weaken the impressions made on it, and consequently affect the memory equally. (See N<sup>o</sup> 12. of the last Sect. concerning the soft and yielding substance of the sensory.) Drunkenness, old age, a stroak or wound on the head, and many diseases do this: and, as has been observed above, this is the constant and first effect of sleep. Memory, as we are active in it, is the power

is a plain question, and the answer to it will decide a great deal in a few words. If the motion of matter be guided, all that I contend for (or else more than I contend for in the present case) is allowed. There is then no shifting, nor declining of consequences. If the motion of matter be not guided; we are at the mercy of the most inexorable of all things, brute-matter tossed about by chance. And is it not strange for men to pretend to foresee such dreadful consequences in the one case, and to be in such security in the other? Direction and Superintendence terrifies them, and the absence of these makes them easy! But to proceed, I have shewn that the motion of matter is guided in every the most contemptible appearance in the Universe; after which, let us suppose that the present appearance is merely mechanical, as mechanical as any man would have it to be: And this only engages a higher Power in it, according to the argument in N<sup>o</sup> 29. since the first Cause is the sole Mover in all mechanical motions. And thus, out of an unwillingness to allow a just and adequate cause of this phenomenon, we necessarily interest the very first and highest Being in the production of it; and, as I said above, N<sup>o</sup> 45. Note (e), load the Deity with all that is mean and unworthy, lest we should degrade inferior Agents. It happens here, as before, with respect to the inertia of matter; (see the Note (h) N<sup>o</sup> 22. Sect. 1.) As long as matter was supposed a resisting substance, an immaterial Mover was necessary; and when we supposed it quite unresisting, the difficulty we would have avoided became greater. So in this point, if dreams are allowed to be immechanical, all that is contended for follows; and if they are denied to be immechanical, more than is contended for becomes unavoidable. A greater evidence than this cannot well be desired.

To conclude therefore, as this appearance is really what may be called enchantment and Rosicrucian-work, as it stands in nature; so not only Homer, Herodotus, Plutarch, &c. but even Lucretius, Democritus, Aristotle, and others of that side, have represented it as such. They never pretend to disguise, or dissemble the enchantment which we are often under, and feel with uneasiness and pain. Common experience would have given them the lie. Macrobius has gone so far, as to name five different kinds of this enchantment, *ὄνειρος, ὄρασις, χρηματισμὸς, ἰνέπνιον, and φαντασμα*, [omnium quæ videre sibi dormientes videntur, quinque principales sunt diversitates & nomina, &c. In som. Scip.] Hence if there be any imputation or reproach in the present objection, no man who ever wrote on this subject is free from it. The only difference between these Writers is, That some of them have ascribed this enchantment to dead matter, and others thought some higher Agent was necessary. And indeed if ever a dream was what might be called *ὄρασις*, or *χρηματισμὸς*, it would be strange to make dead matter the Agent.



itself belonging to the soul, whereby it applies the perceptive capacity to read, as it were, these former impressions; or it is in general that power of the soul, whereby it directs the perceptivity to the consideration of any former object. And this power *no way* depends on the matter of the body. It hath been shewn to be a contradiction to say, The soul cannot exert its active power without the help or instrumentality of dead matter. The soul must act upon matter first, to make it instrumental: and matter could not be the instrument of this *previous action*. See Sect. 4. N<sup>o</sup> 9. Note (k). Thus much of these two kinds of memory here: and we should not forget the difference between them, because, in a state of separation, the last sort will be without impediment.

LIX. Now from this account of memory it should follow, that every new impression made on the sensory, ought to appear *new* to the soul: and yet we see it is otherwise with respect to the impressions made by these invisible agents. It is one thing to see in sleep persons, *quorum tellus amplectitur ossa* (as *Lucretius* expresses it) alive and before us, with whom we were once acquainted;

*Quod ne miremur sopor atque oblivia curant:*

and quite another to see persons, who on their being presented for the *very first time*, are familiar to us, and seem to have had former concerns with us; to jump all at once into a train of *former action*, which we were never before concerned in; and to become instantly possessed of a *train of experience*, which we never acquired! This is the most wonderful appearance, I think, in nature. Nothing but the actions of the *Deity* (which we admire, but do not pretend to account for) can exceed it. But whatever this may proceed from, whether from a different way of acting on the sensory; or some particular *power* and *efficacy*, which so affects the soul as to prompt it with an instantaneous knowledge of all objects thus offered to it; or whatever else may be the cause of it: we undeniably gather this material point from it, That the soul is capable of a more perfect and ready knowledge of things, than that which it attains to now, by the methods of *sense* and *reflection*; where the labour in the acquisition, and the trouble in retaining, is superseded: and that, as there is such a *capacity* on the part of the soul, so spirits not the most perfect and powerful that we can conceive, may prompt it after this manner. This phenomenon is an *instance* and *experiment* of the thing itself. *Investigation*, (whether it be concerning

concerning the natures of material objects, or in abstract reasoning) and *reminiscence*, are the two most difficult things to the soul in its present state: it requires time before we can make a sufficient stock of observations, and then we must proceed laboriously in comparing, and drawing conclusions from them; but this undeniable circumstance of our sleeping visions shews us, that all this trouble may be shortned, or rather become quite unnecessary. It is true, we know that in a state of separation the soul must be freed from all restraint and impediment, because *union to matter* limits and confines it; but still we must conceive it using its own power and industry: whereas this qualification of our knowledge in sleep discovers to us a surprisngly new way, which we could have had no notion of without a *trial*. Without such a trial and experience in sleep, all the perfection of our waking state could not have satisfied us that such a method of affecting the soul was possible. The knowledge we are prompted with is not *bare information*, as when one tells us something we knew not before; that would still have appeared *new*: but this, upon first being suggested, is our *former knowledge*, if I may so express it, a *familiar reminiscence*. It is in this respect that our present method of *remembring* is lost and swallowed up in a superior species of memory. Let men consider what conclusions this phænomenon will justify, either as to the assistance the soul may receive in an after-state, or the enlargement of its own faculties; I shall mention only one particular, *viz.* That the several parts of our past consciousness (which we are perpetually losing) may be recovered instantly, united together, and become one, by a firmer union, than the having recourse to perishable impressions on a corporeal organ, or our present method of reminiscence in general; however differently that may be effected from the formal manner supposed in the last paragraph. And this must at least appear possible, when a thing more difficult and incredible, cannot be denied to be real: for it is not by far so wonderful that we should be prompted with the knowledge of what  *hath been*, and been known too by ourselves; as that the knowledge of things that never were, should appear as belonging to our former consciousness (1).

LX. It

(1) Men pretend to doubt whether the soul can have any memory, when it hath no *impressions* on a material sensory to have recourse to; but the present phænomenon shews, that *memory by no means depends on material impressions*, absolutely speaking. And if *this appearance* hath raised a doubt concerning the identity of our consciousness; it should, in fairness of reasoning, have satisfied that doubt again; considering that a *God of truth* presides over all. A certain  
great

LX. It will perhaps be objected, that this knowledge here argued from is *false* and *unreal*, an illusion and cheat on the mind; and therefore that no inference ought to be drawn from it. To which it is answered *first*, that this, though in some cases an illusion, is yet a *true matter of fact*, and a *real phenomenon* in nature; which therefore, by the rules of philosophy, may and ought to be argued from. *Aristotle*, *Lucretius*, and the other *Authors* mentioned above, have advanced hypotheses to account for the whole appearance in a philosophical way, (though they reckoned all but illusion) which therefore they designed should account for all the circumstances of it. And here, by the way, let any one weigh, and add to the former arguments, the impossibility of accounting for this circumstance mechanically. When a thing is reckoned an illusion, it is the province of philosophy to find out how the illusion could be effected: in *Opticks*, when the place of the object is changed, and the dimensions of it enlarged; this is apparent only, not real, and may be reckoned an illusion: yet it is real and useful knowledge to understand the way how this is produced. And *secondly*, since the *manner of communicating a thing*, is independent on the thing communicated; this can be no objection against the manner of communicating this knowledge, let it be as false and delusive as it will. If I am so affected in sleep, as to know a man and his designs, though he hath no existence but in vision; might not I be so affected as to know this man and his designs, if he had a real existence? There is *all the parity* here that needs be desired, to make an inference. Besides, other real and true knowledge, against which no exception could be made, might be communicated to us the same way. The *subject* imagined to be read out of the book, in the instance above, may be of the same kind with any of those arguments that are enquired after by men at other times. If we should suppose a man to dream that another made out a speculative truth to him, (which, this instance, and perhaps the experience of some shews not to be absolutely impossible to be done) this knowledge would be real. *That real matters of fact have been discovered in dreams*, I think even a philosopher may allow to be morally certain. I

great *Author* says, "He takes his Being upon trust:" so he might indeed, provided it was not from *chance*; that is no sure foundation to trust to. *Matter* is now altogether out of the question, I presume; and we are speaking of the power of *immaterial Beings*: and it would be quite absurd to think there is no *higher power* in nature, than such as can deceive and impose upon us; that *Truth* hath not a *supreme Patron* in the Universe.

have



I have never heard of any man so incredulous as to refuse it. *Aristotle* frequently mentions *προορατικοί*, such as *foresee* in sleep what is to come; and *εὐθυόνοροι*, such as have *true dreams*: notwithstanding the poor solution he offers of such an extraordinary appearance. *Lucretius* affirms, rather than allows, that many reveal their own secret villanies in sleep (*m*). This is truth of one kind at least discovered, every way inconsistent with his principles. What *Mr. Hobbes* thought on this head, I have given a pregnant instance of above. The contradictory notions these men had of this appearance did not hinder them from confessing, and allowing, the circumstances of it. History is full of this, which our own experience shews, is no way impossible. *Sylla* wrote two and twenty books of commentaries of his own actions; these he inscribed to *Lucullus*, whom he left tutor to his only son, passing by *Pompey*, and all the other men of power in the commonwealth: and in these commentaries he advises *Lucullus* to look upon nothing so firm and certain [*ἄρα αἰσίωνισον ἢ βέβαιον*] as what he was forewarned of in dreams (*n*). Now if we consider all the circumstances, this will appear very remarkable. *Sylla's* character, whatever it might be in other respects, was far from lightness and vanity. And *Lucullus* calls this advice to mind, on a very signal instance of a dream, which I have already mentioned, whereby the city of *Sinope*, and all its inhabitants were saved from ruin. *Cyrus* in his dying speech to his sons, says the soul in sleep becomes more divine, and sees as it were into futurity (*o*). *Peticius*, a Roman pilot, the night after the defeat of *Pharsalia*, dreamt he saw *Pompey*, not as he had often seen him in *Rome*; but sad and dejected, coming forward and speaking to him. In the morning, as he was telling this

(*m*) *Multi de magnis per somnum rebus loquuntur,*  
*Indiciisque suo facti persæpe fuere.* Lib. 4. ver. 1012.

And again more expressly,

*Nec facile 'st placidam ac pacatam degere vitam,*  
*Qui violat factis communia fœdera pacis.*  
*Et si fallit enim Divum genus, humanumque,*  
*Perpetuò tamen id fore clàm diffidere debet,*  
*Quippe ubi se multi per somnia sæpe loquentes*  
*Aut morbo delirantes, procraxe feruntur,*  
*Et celata diu in medium peccata dedisse.* Lib. 5. ver. 1153.

This is *too little* to keep the world in awe; and yet it is *too much*, for chance or mechanism to perform.

(*n*) See *Lucullus's* life in *Plutarch*, as also *Sylla's*; for it is written in both.

(*o*) Let it be remembered that *Xenophon* writes this, the finest Writer, and one of the greatest men of antiquity.

melancholy

melancholy sight to those that were aboard with him, they came and told him that a small vessel drew nigh, and that those who were in it waved their garments, desiring to be received. When it was come close, and *Peticus* had come up, he saw the same sight he had seen in his sleep, *Pompey the Great in a sad reverse of fortune*, [—ἐπισὰς ἐν Πετίκιος, εὐθὺς ἔγνω πὺν Πομπήιον, οὗον ὄναρ εἶδε· ἢ πληξάμενος πλὴν κεφαλῶν, &c.] Now, though I do not argue from particular matters of fact in such relations; but only alledge them as things no way improbable or absurd, being agreeable to the common sense of mankind in such cases: yet here, though I would, I know not what to deny; *Plutarch's* veracity, or *Peticus's* sincerity in contriving off hand a story, which was immediately followed with the event. I might instance *Pelopidas's* dream before the famous battel of *Leuctra*, or *Timoleon's* before his expedition into *Sicily*; with a thousand others. The first of these was such as could not have been contrived after the event, nor concealed before: the chief Men in the army were called together to consult about it; there was a warm contest between the *Generals* and the *Priests*, whether it should be obeyed literally; and when they came to a resolution, the affair was communicated to the whole army. And a publick act of the whole city of *Corinth* followed upon the last. If such things are allowed, more will follow than I contend for here; viz. That things to come, have been actually foretold in dreams: let others determine concerning the power of such a Being as can fore-know future events.

LXI. Moreover, as to the present subject, let us reflect that the representations of persons and actions in sleep, are *pictures* made by impressions on the sensory; and the ideas of real persons and actions, which we have while awake, are only such *pictures* with respect to the soul itself; there is nothing more real in the one sort of representation than the other: therefore the soul is made to do as much, when it enters into the designs and plots of the one, from such representations, as if it entered into the designs of the other, from the same, or an equal representation. And it is made to do a great deal more, when it becomes conscious of former transactions (which never were) between the *first sort*, and it; than if it became conscious of transactions, which have been between the *last sort* and it, though now long forgot. Let us make a supposition that a man walking in a solitary place, in a country where he had never been before, saw before him, by the power of enchantment, a great house, and that

his curiosity led him thither, where he finds a numerous family of servants, and other people, variously occupied about their domestick affairs, or diversions: this man might easily be excused, if he took this crowd of people for real men and women, busied in real action, not being on his guard against illusion, nor perhaps having power to be so: but then he might also be excused, if he took them all for strangers to him, and behaved himself as in a place, and among company unknown; since this is the natural way to behave on such occasions. But if farther, he should be *so affected* by the force of this enchantment, as to know them all familiarly at first sight, to understand their business, and designs, and characters, as if he had had a long acquaintance and familiarity with them; if he should all in an instant begin to act his part, as if he were one of them, and do what it was expected he should do; if he should converse with them, as in consequence of a long familiarity; if he should have a contest with one, upon the account of an old grudge, and lie under obligations to others for former favours, &c. the wonder might justly seem doubled. Such an extravagant relation as this could not meet with belief among the most ignorant and credulous: and yet it is no more than what happens literally to some of us every night in our dreams. Surely it is because there is a *God of truth*, who sets boundaries to the power of these Beings, that we are not deluded into the extremest Scepticism by them; that our waking senses are not so bewildered with inconsistencies of *facts* and *persons*, as to confound human reason; and that we are not led by them every minute to pursue that which would be our ruin! This is that which, as hath been observed before (N<sup>o</sup> 6.) *no mechanism, no solution or hypothesis* can account for; it is *touching the soul* in another manner than by the bare exhibiting of vision to it: one who considers it right, will be surprised that *matter, mechanism, traces*, should be offered as the cause. Now in this case, it is the same thing with respect to the man's being prompted with a knowledge of these imaginary persons, as if they were real. And by whatever way it is that he is endued with this extemporary experience of a whole past life, or by whatever way it is that we are endued, in like instances, with the knowledge of a train of past *unreal* actions; the same power, the same way applied, not to speak of a greater, could make us enter *in a twinkling*, into all the real knowledge and consciousness, which the perfections of *God*, and the consistency of the moral world demands. To grant the one, and doubt of the other, is to allow that there may be an *evil principle* in the nature of things, superior to the *good One*,



a principle who hath power to pervert truth, and represent things as *they are not* ; while the other cannot preserve it, nor represent things as *they are*.

LXII. To end this tedious essay : we may observe *two things* which chiefly tend to make us sceptical with regard to the existence of separate spirits, and their power. First, when by the help of a little philosophy we come to have immoderate notions of the *natural powers of matter*, as they are called : we then do not think the agency of any spirit necessary, and that matter hath all the powers and virtues that a Philosopher ought to admit of. Yet a close survey of matter, its origin and conditions, best of all things shews this to be quite otherwise. The other is a preposterous, if not pretended care, not to weaken the minds of children and young people (*p*). There will be idle stories of ghosts and apparitions, as long as the world stands, as there are false reports concerning every thing that is true. We should not surprize and fright young persons with filly, idle relations, which may have an ill effect on their tender minds : but to avoid this, which is not the greatest inconvenience they may fall into, much discretion is to be used. We ought not to tell them that all these things are groundless and absurd ; but own that there is a possibility of them ; and that God only can protect us from their power and malice, if we firmly trust in him. *Reason* is strongest, holds best with any age, and is that which will endure : and one who is capable of observing what occurs to his mind in sleep, and curious to know how it may be, is capable of having a rational account of it given him. It is not impossible that one who believed the existence of separate spirits, and that they are constantly in company with him, (for I am apt to think this is true, whatever we believe) might be able to be alone in the dark, or in a room by himself, without fear. There is no true courage, but what is built

(*p*) It is long since this was a Sceptical pretence. In the *Philopseudes* of *Lucian*, mentioned before, *Tychiades the Sceptick* affectedly cautions the vain old men, that they should not talk so idly, if it were but for the sake of the two young Lads who were present ; because this might fill their heads with Goblins and Spectres, that would haunt them as long as they lived. Thus far he was right ; we should not talk idly before young or old : we need talk nothing of this, but give consistent accounts to *young persons*, as soon as they are capable of them, or want them to solve some doubt ; but there is a great difference betwixt proceeding thus with them, and endeavouring to make them sturdy against the belief of Spirits, by telling them there are no such things, nor reason to believe any accounts of this kind. Out of an over-great zeal to have them *strong*, we bend them to the side of *Scepticism*, as if that were a less weakness.

upon a rational foundation. And to be convinced that a *Being of infinite perfection* rules over all; and to have nothing, or nothing beyond the consequences of human infirmities, to fear from him, is this foundation. Men were formerly credulous and easy perhaps: now they are affectedly nice, with the air of more philosophy and knowledge: but our Moderns forget that he, who believes that dead matter can produce the effects of life and reason, is a hundred times more credulous than the most thorough-paced Believer that ever existed.

## S E C T. VII.

*Dean Berkeley's scheme against the existence of matter, and a material world examined, and shewn inconclusive.*

SOME men deny all immaterial, and others all material substance; so that between them they leave *nothing at all* existing in nature. These two opposite parties help to expose each other; and it is hard to say, every thing considered, whose share is greatest in the absurdity of *expunging all Being out of existence*. Yet thus much we may observe, that the existence of *both substances* must be very plain, since each side maintains that the existence of the substance which they themselves assert must be self-evident: for it would be absurd in either of the parties to suppose arguments *necessary* to prove that any thing at all exists. Our dreams having no real external objects, and some of the *ancient Writers* having suggested that *this* might be made a ground for doubting whether there were really any such objects; a late ingenious and learned *Author* hath taken the hint, not only to doubt of the reality of matter and a material world, but to pretend to demonstrate *the existence of any such thing impossible and contradictory* (a). The attempt certainly is surprising. If

(a) Whatever way our dreams may be accounted for, whether by thin membranes rising from the surfaces of bodies, as *Democritus* thought; or motions continued in the sensory after the objects cease to act, as *Aristotle* and *Hobbes* maintained; or by *new impressions* made upon it in the time of sleep, as I have endeavoured to shew in the last Section: all these ways still

If his books had been written with a design to excite men to try what they could say, in case *such a kind* of Scepticism should begin to prevail ;

suppose the real existence of matter, in supposing both a *sensory* and *objects* acting upon it. Hence it seems inconsistent in *Plato*, to think the existence of matter might be called in question from this appearance of our dreams ; since on any *hypothesis* for solving it, the *existence* of matter must be allowed : or *if it be not allowed*, all indeed is but a dream, even while we are awake, and the *very distinction* between dreaming and not dreaming is taken quite away. For what reason can we have to argue that objects are imaginary and *unreal*, while we are awake, because they are imaginary and *unreal* while we sleep ; if we allow no previous difference ? Waking itself is made but the most deceitful dream, and we then determine the question, without referring to dreams, and take away all difference between the two states, as to the reality of external objects. And if we previously allow a difference, how can we infer from allowing a difference, that there is no difference ? We thus cut off the conclusion a contrary way. Therefore we can never draw the designed inference, let us make which of the suppositions we please. This is generally the fate of scepticizing ; *The design frustrates itself*.

To make this a little plainer. If matter be supposed *necessary in the representation of this phenomenon* of dreaming, it must be contradictory to infer from the *phenomenon itself* that matter does not exist. And if matter be supposed not to exist in the representation of the phenomenon ; it must be equally absurd from supposing it *not to exist*, to infer that therefore *it does not actually exist*. There is no difference made on that supposition between the appearances of objects in sleep, and their appearance at other times ; *i. e.* the difference on which the argument proceeds, *is taken away* by the very supposition of the argument ; and it is made to contradict itself, as before.

If it should be said, that it is not necessary to make any supposition at all concerning the existence of matter in this appearance, but to take the appearance itself as we find it : I answer, *first*, That is impossible ; the *question* is concerning the existence of matter, and it is to be proved dubious from a certain appearance ; therefore it must be supposed either *dubious*, or not *dubious*, before-hand. And, *secondly*, not to consider with exactness and care every circumstance of an appearance, from which we would infer such a weighty inference, as the existence of a material world, shews a *willingness* to mistake, or misrepresent things in this momentous affair. And, *thirdly*, to say it is not necessary at all to make any supposition concerning the existence of matter in this case, is to suppose that the *appearance* may be produced indifferently, whether matter exist, or not ; and that again is to contradict all the evidence we have for the existence of matter in a waking state, before we come to doubt of it from the appearance of dreaming ; or it is to confound the distinction of the two states, from which nevertheless we pretend to raise our doubt and suspicion. Wherefore at any rate it is inconsistent to think this appearance can afford us a ground of doubting.

Whether our Author could have any other ground to call the existence of matter in question, shall be considered afterward ; though it seems evident in itself, that the reality of external objects could never have been questioned, unless we had some time or other been deceived in this point, either while asleep, or while awake. Had not this happened, all suspicion would have been prevented, and doubting thought a piece of extravagance.



or as an *exercise* in an university, to shew how far wit and invention might go to maintain a paradox, there had been little in it: but when a person of great capacity and learning seems serious, and writes pieces, one after another, to support this kind of Scepticism, and continues in these sentiments for such a number of years; if it be not carrying an ungentle sort of a *banter* a great deal too far, one cannot tell what to think of it. For it seems impossible that a man should be seriously persuaded that he has neither *country* nor *parents*, nor any *material body*, nor *eats*, nor *drinks*, nor lies in a *house*; but that all these things are mere *illusions*, and have no existence but in the fancy.

\* That which makes it necessary here to examine this scheme, which denies the possibility of matter, is because all the arguments I have offered for the *Being* of a *God* in Sect. 1. and 2. above, are drawn from the consideration of this *impossible thing*; viz. from the *inertia* of matter, the *motion* of matter, the *cohesion* of matter, &c. and every one sees what impropriety, or rather what repugnance there must be, to speak of the *vis inertiae* of ideas, the *motion* or *gravity* of ideas, the *elasticity* or *cohesion* of ideas. Whence these arguments must amount to nothing, if there be nothing but ideas instead of the objects of our ideas, as being drawn from *properties* which can belong to no subject, and which therefore must be *impossible*. Thus there must either be no truth in what I have said, or in what this *Author* advances; for *two such opposite accounts of nature* cannot both be true: and if the conclusions in these two Sections be solid, this itself will be a weighty argument against his scheme. However, I shall here endeavour to shew the inconclusiveness of it from reasons particularly applied; and try at least to remove so weighty an objection, if I cannot add more light to what hath already been said.

II. In considering this new scheme, the following particulars are to be remarked. The *nature* or *essence* of things is altogether different from their *existence*; the former being the ideas in the Divine Intellect, eternally consistent so as to be made to subsist together in the same subject, by his power, whenever it should so seem good to his wisdom: the latter, viz. their existence, then commences, when his power is exerted to this effect; or when this *co-subsistence* of properties is first actually effected, with respect to a determined time and place (*b*). And from thence it follows,

(*b*) In the *Universal Dictionary*, or *Cyclopædia*, under the word *Existence*, it is observed, that the existence of created Beings hath relation to *time*, *place*, and a *cause*: That *essence* is explained

follows, that there are eternal properties in the natures of all things, as being originally, eternally consistent ideas; for the eternal consistency and agreement of these ideas, makes these eternal properties. And from hence again it follows, that we can demonstrate several eternal truths concerning the *natures* or *essences* of things: for to shew the necessity, or necessary consistence, of these eternal properties, is to demonstrate eternal truths concerning their natures. To exemplify this. *Solidity* and *extension* were eternally consistent in the divine ideas, so as to be made to subsist in the same subject, (of which subject indeed we have no idea; but God hath, and had it before the subject itself was:) this eternal consistency makes the nature of this *thing* eternal. There was farther, a necessary connexion between the ideas of *solidity* and *resistance*; if it did not resist it would be unsolid: or the idea of *not-resisting* is inconsistent with the idea of *solidity*. Moreover, there was an inconsistency between the idea of *resisting* and the idea of *effecting* what it resisted, [*viz.* a change of its present state.] And therefore from this respect, or habitude, of these ideas to each other, this property, That it is impossible this *thing* should ever effect a change of its present state, *eternally* and *necessarily* belongs to the nature of it. And therefore, when we shew the necessity of this property, we demonstrate an eternal truth concerning the nature of this *thing*. Therefore, as before, I infer that we can demonstrate several eternal truths concerning the *natures* or *essences* of things (c).

plained by the chief and radical property of a thing, or all the properties and *existence* by specifying the time, place or cause; and then it is added,——“The foundation and occasion of this distinction, is this; that *essence* belongs to the question, *What is it? Quid est?* But *existence* to the question, *Is it? An est?* 3tio, *Existence* necessarily presupposes *essence*, and cannot be conceived without it; but *essence* may be conceived without *existence*; in that *essence* belongs equally to things that are in *potentiâ*, and in *actu*; but *existence* only to those in *actu*. Note however, that this does not obtain in God, about whose nature and *essence*, the mind cannot think, without conceiving his *existence*.” By being in *potentiâ* here, must be understood, being producible by the power of God, according to his ideas. Farther, *nature* and *essence* are here synonymous, and, I think, rightly. Lastly, It is well observed here that as *essence*, *nature*, eternal properties, or eternal truth, have no relation to a particular time; so neither have they to place, or cause; or, they are as little circumscribed in place as time; and to have a cause is incompetent to them, being eternal. This is one way of coming at a view of the eternity and immanency of the necessary Mind, where these were eternally known.

(c) The natures of things with respect to us, are the consistent ideas in our minds, which are copies (though but imperfect, and in part) of the eternally consistent ideas in the divine Mind.

III. On the other hand, the *existence of things* hath no eternal properties; that is, eternally consistent, or necessarily related ideas, belonging to it. These were all in the Divine Mind, long before any thing but himself actually existed; and belonged to their *natures*, not their *actual existence*, which was arbitrary and depended upon his good pleasure to effect. The property just now mentioned, *v. g.* is no way predicable concerning the existence of matter, nor true only when it exists; but concerning its nature, and true whether it exists, or not. Therefore there is no eternal truth demonstrable concerning the existence of Beings, (the *necessarily existing Being* excepted, who is out of the present controversy) unless it be this, That their existence was eternally possible, as depending upon his pleasure, and being performable by his power: for such truth would have supposed such eternal necessary properties predicable concerning their existence; or that it had been necessary (*d*). Therefore, since the existence of *matter*, the *soul* of man, or other finite immaterial *Beings*, is only possible, or contingent, the only question concerning their existence is, *Whether it be actually effected, or not?* It is not demonstrable as the existence of God is; for his existence is a part of his nature, and inseparable from it: but there is no necessary connexion between *their nature*, which was eternal in the Divine Mind, and *their existence* which is only possible. Nor can there be a connexion between any thing that is necessary, and a thing that is but barely possible.

IV. Thus it appears that to require an *absolute demonstration* of the existence of matter, of the soul of man, (of man in general, I mean, for no man wants a demonstration of the existence of his own soul) or of other finite immaterial Beings, is to mistake the nature of such a demonstration, and of the subject it is conversant about. It is to require a demonstration of the necessary existence of those Beings, whose existence, *ex concessis*, is contingent: for such an *absolute demonstration* must have been always true; just as any demonstration of the property of a *geometrical figure* was always true. That is, it must have been always true that matter existed. Supposing a possible being really existed, there is no other way

(*d*) The existence of a thing, which is but barely possible, implies no contradiction (absolutely speaking) never to be; otherwise its existence would become some time or other necessary; and that eternal properties should belong to a thing that may never be, is absurd.



to shew the existence of it to another, but by the *effects* it produces, or the *perceptions* it raises in some percipient Being; or by shewing it would be an absurdity for such *effects*, or *perceptions*, to have any other cause.

V. Yet because this contradiction, *viz.* *That a contingent Being, exists necessarily*, cannot be demonstrated; some men have unskilfully resolved to make a doubt of it, Whether matter actually existed. This is a wilful, determined kind of Scepticism: because a contradiction cannot be shewn true, therefore they *resolve* (nay I may say *force* themselves) to doubt; and if it could be shewn true, there would be no need of forcing themselves to become Scepticks; for it would be unavoidable. All truth, as hath often been said, stands or falls together. The existence of *necessary* and *contingent* Being would be upon the same level: either all Being would be but barely possible, and once nothing at all might have existed; or all Being should be equally necessary, and nothing that exists could ever have not existed.

VI. *Matter* therefore, the *human soul*, and other *finite spirits*, are contingent Beings: the idea of matter, *v. g.* was eternally consistent in the Divine Mind, and is consistent in our minds: but the idea of any thing impossible to exist, or of an impossible effect, can never be consistent. The reason is, an inconsistency in the idea and conception. And this shews the possibility of matter's existing, whenever it should please Infinite Wisdom. Since therefore the existence of it is possible, nor implies any contradiction; it is impossible for any man to demonstrate the non-existence of it. For that would be to undertake to demonstrate a possibility *impossible*. This, in few words, might be an answer to, and shews us the absurdity of, Dean *Berkley's* undertaking, who (as I said) pretends to prove, that the existence of matter, or bodies, out of a mind, is a contradiction in terms (*e*). He all along allows the consistency of the idea of it; and yet contends, by a new kind of reasoning, that the object of this consistent idea implies a contradiction in terms to be made exist: for by the same argument, whatever it be, he might prove that any thing, besides the Deity, implies a contradiction in terms to be made exist; or deny

(*e*) Under the word Body, in the *Cyclopadia*, a part of the long citation from Dean *Berkley* is ——"On the whole it appears, that the existence of bodies out of a mind perceiving them, is not only *impossible* and a *contradiction in terms*; but were it possible, nay real, it were impossible we should ever know it."

entirely a creating power to him; since the consistency of the ideas in the Divine Intellect is that which constitutes the possibility of the existence of all other things. If we add to this, that the existence of body without the mind; or of a *real, solid, figured, divisible, resisting substance*; for the idea of it in the mind is no more such a substance, than the idea of a Centaur is a *real Centaur*; if, I say, we add to this, that the existence of matter hath all the evidence for it, as will soon appear, that the nature of the thing can admit of, without requiring the contradiction above to be proved; it is not easy to guess what justifiable design a man could propose to himself in such an extraordinary attempt, as to demonstrate that the beautiful system of material nature; heaven and earth; the sun, moon, and stars; the bodies of men and beasts; all the wonders in the vegetable and animal oeconomy; their usefulness to mankind; and the kindness of God in bestowing them, *are nothing but a dream within the mind.*

VII. But to be more particular as to the nature of this undertaking: A man who believes there is no such thing as a *solid, resisting, figured substance*; no material world; no such Beings as men, compounded of *body and spirit*; in fine, no books, writing, printing, speaking, &c. but that all these are ideas in the mind only, having no existence without it; can never propose consistently with his own belief, to dispute *with men*, or propagate his doubting among them. He knows not *what things* they are which he would convince, or if there be *any Beings* differing from him in opinion: for all these ideas that are excited in him, as of Beings maintaining the contrary of what he maintains, may be only ideas raised in him, by some spirit that hath a design to make a fool of, and impose upon him; as he thinks all the world besides are cheated with other delusory ideas: What greater evidence hath he for the existence of other men's souls, than of their bodies; though he may have more for that of his own? We only collect concerning the souls of other men from the *spontaneous motions*, and *actions* of their bodies: these, according to him, belong to nothing. Besides, he hath nothing but ideas, or dreams, when he speaks, writes, publishes books. How doth he pretend that these dreams of his should be communicated to other Beings, granting that they existed? In short, his whole enterprize proceeds upon the supposition of the reality of what he is going to confute. And thus, I think, he puts it in his adversary's power, to prove from the very nature of his attempt, that he doth not believe himself, and so to confute him without using any other arguments.





lief, not to contradict himself, should never open his mouth, (the idea of his mouth, perhaps I should say) but lament in silence the misery of his con-

was not that very thing more than another thing: he set about making his life agreeable to his principles; (if we could say that a Sceptick had principles against their own principle;) he avoided no danger, would not stir out of the way, though a *chariot* or *waggon* was to go over him; would not go about, if a precipice was before him, nor beat off a *dog*, if he came upon him; and in this rigid observation of his principles, his friends were obliged to follow him, to prevent accidents. I shall still give my authority. — Οὐδὲ γὰρ ἴσμεν ἅτε κύνων, ἅτε αἰ-  
ετῶν (says his Historian) ἅτε δίκων, ἅτε ἀδίκων· καὶ ὁμοίως ἐπὶ πάντων, μὴδὲν εἶναι τῇ ἀληθείᾳ, νῦν δὲ καὶ ἴδω· πάντα τὰς ἀνθρώπων πράξεις· ἔστι γὰρ μᾶλλον τὸδὲ ἢ τὸδὲ εἶναι ἕκαστον· ἀκού-  
σας δ' ἢ τῷ βίῳ, μὴδὲ ἐντρέποντο, μὴδὲ φυλάττοντο, ἅπαντα ὑφιστάμενοι, ἀμαρτίας, ἢ τοῦτο, καὶ κερμαίους, καὶ κινῶν, καὶ ἴδω· τῶν αἰσθησέων ἐντρέποντο· οὐδέ τι μὲν (αὐτὰς  
φύσιν) αἰσθῆναι καὶ κατενόησαν (ἀντιφύσιν)· ἐπὶ τῶν γινόμενων παρακολυθούμενοι. If he would yield no-  
thing to his senses (as here is said) he should not (agreeably to his own principles it seems) have at all made use of them, nor walked upon his legs, nor done as other men do; but lain in one place, without motion or action. He was once greatly ashamed for having driven away a dog that would have torn him, and made a scrupulous apology for acting against his principles. But of this enough.

Now where can we expect to get free from *bigotry*, if it runs to such heights in *Scepticism* itself? It is impossible those men could understand or believe themselves; and yet we see to what absurdity their zeal for maintaining [one cannot tell what] carried them. How little reason therefore have men of this way of thinking to object *credulity* and *bigotry*? The man who refuses his assent to plain truths, is every way worse, and commits a greater violence on his faculties, than he who believes things without sufficient proof: and certainly more *sophistry*, *cunning* and *disingenuous shifting* is required to maintain that *Truth cannot be found out*, than there would honest application and industry to find it out: and farther, since this is the great principle of *Academism* and *Scepticism*, That *Truth cannot be perceived*, on maintaining of which their honour is staked; the men under these denominations cannot be said so much to have a *disposition* to find out the truth, as a *fixed resolution* to oppose it. Cicero does all he can to make good Pyrrho's *ισοδυναμία τῶν λόγων*, or equality of arguments on both sides; he labours to keep a due balance between *truth* and *falsehood*. It is mean and unworthy to see him, upon this account, endeavouring to undermine the truths in geometry, by little impotent cavils. Mr. Bayle, in his Controversy concerning the preferableness of *Atheism* to *Superstition*, doth not so much as endeavour to keep the balance; but leans with all his force to the wrong side. And a certain great Author is sometimes a *Dogmatist*, and gives us a scheme of virtue independent of any Deity; and sometimes a regular and precise *Academist*. "There is nothing so foolish and deluding (says he) as a partial Scepticism. For while the doubt is cast only on one side, the certainty grows so much stronger on the other." Can any thing be more absurd than to cast the doubt upon two opposite and contrary propositions, as if both might be false, or both true? I do not mean that objections should not be put with all their force: but there are some truths so glaring that a man cannot cast doubt upon them, without committing much violence on his reason. The art of writing is made to consist in keeping an equilibrium between the arguments on opposite sides. This may catch a little vain applause; but it is against the interests of truth, and against the rational nature.

dition, his lonely state, and the mist and darkness he is inextricably bewildered in.

And this argument from the *inconsistency of the method* is applicable to him who but barely doubts, if he offers to dispute with the *Beings themselves*, in order to be satisfied *himself* whether *they are*; or to convince *them* that *they are not*: for this disputing supposes the *reality* of the thing he pretends to doubt of (g). But when one undertakes to demonstrate to us, *that we have nothing whereby another could know that we exist*; since he cannot do this, but by supposing the *truth* of what he pretends to demonstrate *false*, one is at a loss what notion to form of such a procedure. He may be justified, I think, in saying, "The strangeness of the attempt is not to be paralleled." And how our Author can be vindicated from this contradictory procedure, I do not see: for he pretends to demonstrate the impossibility of the existence of *mens bodies*, and thereby denies all evidence that other men can have for the existence of their *souls*; which indeed amounts to denying their existence altogether, and demonstrating the impossibility of it to *those very Beings* at the same time.

VIII. The great reason why this Author pretends to doubt of the existence of material substance, or to demonstrate it impossible, is because *we are percipient of nothing but our own perceptions and ideas*; and because *figure, colour, resistance, &c.* is not this substance (b). Now (to observe

(g) Mr. Wollaston says, [Sect. 3. Prop. 4. pag. 43. in the Note (a)]. "The question in Plato, *Τί ἄν τις ἔχει τινος ἄλλου ἀποδείξαι, ἢ τὸ ἴδιον, ὃν ἑαυτὸς ἐν τῷ παρόντι, πότισιν καὶ οὐδὲν, καὶ πάντα ἢ διασπασθὲν ἀποδείξαι, κ. τ. λ.* may have place among the *velitatio*-*ons* of Philosophers; but a man can scarcely propose it to himself seriously. If he doth, the answer will attend it." But, with submission, I think it can have no place even *disputandi gratiâ*, without this contradiction in the method. For the supposing *every thing which we think to be but a dream* (though we are certain that we ourselves, who thus dream, exist) is supposing *all other things unreal*, or only phantastical illusions; and then we must suppose ourselves left alone, surrounded only with our own *visions and fancies*; and how a man can *velitate* with others in this solitary condition is hard to imagine, unless he make a contrary supposition, *destructive of the first*, viz. That other Beings are not unreal. And if men cannot find a handle to scepticize from, without making contradictory suppositions, they should be satisfied of the absurdity of the attempt. We cannot conceive how *truth and certainty* could have been more guarded than it is. Men must previously suppose a contradiction, before they can attack it. And if this be considered, we may justly wonder why the reputation of Scepticism should be so great.

(b) In the *Cyclopædia*, the citation above begins thus; — (Against the existence of *Bodies* or any external world, Mr. Berkley argues very strenuously.) — That neither our *thoughts*, *passions*,

here the extent of this kind of doubting) this argument will equally shew spiritual substance to be a *contradiction in terms*, as well as matter: for we are percipient of nothing but our own perceptions and ideas, with respect to the *soul* of another man, as well as with respect to his *body*; or if this be true in either, it is true in both. *Activity* and *perceptivity*, the only properties whereby we infer the existence of spiritual substance, are not that substance, but qualities belonging to it, any more than *figure*, *motion*, &c. are corporeal substance. If then this argument is good for any thing in the first case, it is as good in the second; and if it demonstrate matter out of existence, it equally demonstrates all substance out of existence, save the mind thus percipient, without excepting the Deity himself. So that, brought to its genuine and undissembled issue, it ends in that kind of knowledge mentioned once or twice above, called *Egomism* (i). Dean *Berkley*, I think, is not far from owning this. In Sect. 138. of what he calls his *Principles*, he hath these words: — “If there-fore ’tis impossible that any degree of these powers [willing, thinking, and perception of ideas, to wit] should be represented in an idea or no-  
“tion, ’tis evident *there can be no idea or notion of a spirit.*” — Here we may observe that, if we neither have any idea or notion of spiritual substance itself, nor of these properties whereby we could only come to the knowledge of such a substance, (*activity* and *perceptivity*, the examples of which he assigns) it seems impossible that such a thing could ever have entered into the thoughts of men. These particulars ought to be well considered by those who run so greedily into this scheme. It is true, *thinking*, *willing*, &c. cannot be painted in the imagination, as objects having figure and magnitude may: but might not this *Author* thus prove, that we can have no idea or notion of *virtue*, *justice*, *truth*? And if this consequence be fair, as it seems to be; this scheme is a complication of *all the species of Scepticism* that have ever yet been broached. *Notion*

*passions*, nor *ideas* formed by the imagination, exist without the mind, he observes is allowed; and that the various sensations impressed on the mind, *whatever objects they may compose*, cannot exist otherwise than in a mind perceiving them, is not less evident. This appears from the meaning of the term exist, &c. — Here, that sensations *compose* their objects, wants a little proof, and is at best a very equivocal expression.

(i) *Quelques Spinosisles sentant que l’evidence leur échappe à tout moment, dans les pretendues démonstrations de leur Maître, sont tombés dans une espece de Pyrrhonisme insensé, nommé l’Egomisme, où chacun se croit le seul être existant.* Mr. *Ramsay’s* Discourse upon Mythology, Part 1. near the end.

extends



extends not only to the images of corporeal objects in the fancy, but to whatever is the object of the understanding (k). It is not enough that an Author is not explicate in owning all the absurdities which arise from his scheme; or that he denies them: others will assign his authority to justify their maintaining them. *Epicurus* said many things well. *Cum bene praesertim multa ac divinitus ipsis Immortalibus de Deo dare dicta fuerit* and hath left many fine things in writing; and yet when this was observed to *Cicero*, who condemned his philosophy, he answers, *Non quare quid dicat, sed quid convenienter rationi possit, &c. sententiae suae dicere.* *mihi quidem non*

IX. But to return. If Dean *Berkley*, to evade the inconsistency mentioned in No 7. of disputing with, and endeavouring to convince nobody at all, for ought he knows, should say that God excites the ideas of mens souls in him, (provided he will allow that there can be any Idea, or notion, of souls) then all his certainty for the existence of mens souls, is because God would not excite the ideas of these Beings in us, to make us believe they were, unless they really were. And this would be founding his belief of immaterial substance, precisely upon the reason which Dr. *Clarke* hath brought, to shew that we cannot possibly be deceived, in concluding that material substance really exists without the mind. That is, he cannot avoid proceeding in contradiction to himself, and his own tenets, without having recourse to the force of the Doctor's demonstration (l):

(k) *Des Cartes* and Mr. *Locke*, take the word idea itself in the same sense. Mr. *Locke* says, (*Introduction, sect. 8*) "It being that Term, which, I think, serves best to stand for whatsoever is the object of the understanding, when a man thinks, I have used it to express whatever is meant by Phantasm, Notion, Species, or whatever it is, which the mind can be employed about in thinking." *Des Cartes* says in his geometrical method of proving the existence of God, and the Soul, *Defin. 2. Idée nomine intelligo cujuslibet cogitationis formam illam, per cujus immediatam perceptionem ipsius ejusdem cogitationis conscius sum; aded ut nihil possim verbis exprimere intelligendo id quod dico, quin ex hoc ipso certum sit in me esse ideam ejus quod verbis illis significatur. Atque ita non solas imagines in phantasiâ depictas ideas voco: imò ipsas huc nullo modo voco ideas, quatenus sunt in phantasiâ corporeâ, hoc est in parte aliquâ cerebri depictæ, sed tantum quatenus mentem ipsam in illam cerebri partem conversam informant.* This is very distinct and full. Dean *Berkley*, who will not allow us to have any notion or idea of thinking, willing, &c. should give us his acceptation of the word; or shew us what is amis in Mr. *Locke* or *Des Cartes*'s acceptation. Whatever he may say about abstract ideas, it is certain all true demonstration is in abstract ideas.

(l) See this Demonstration in the *Cyclopædia*, under the word Body, immediately after Dean *Berkley*'s arguments against the existence of matter.

and that demonstration overthrows his tenets. This I take to be a hard Dilemma upon the scheme.

X. Here we may farther observe, since Dean Berkeley's argument demonstrates all substance out of existence, equally with material substance; what small reason he had to proclaim (Sect. 93 of his Book) his victory over the *Albists* and *Scepticks*. His words are — "Without which [unthinking matter, to wit] your *Epicureans*, *Hobbits*, and the like, have not even the shadow of a pretence, but become the most cheap and easy triumph in the world." — And again, Sect. 96, "Matter being once expelled out of nature, drags with it so many sceptical and impious notions, &c." This is, I think, as if one should advance, that the best way for a woman to silence those, who may attack her reputation, is to turn a common prostitute. He puts us into a way of denying all things, that we may get rid of the absurdity of those who deny some things.

XI. If we will talk soberly, though the evidence of sense is not the greatest we are capable of; yet since it is the most universal and constant, fitted to all the concerns of life, and the capacities of all men; since (except in a few cases, the causes of which we know, and can rectify the judgment) there is a satisfactory agreement between the informations of it, through all different ages, and in all countries; and since it is in effect, the first foundation of all our knowledge, in our present state of union with matter; the man who endeavours to overturn the evidence of sense universally, endeavours to introduce the wildest and most unbounded Scepticism, let his pretences be what they will. And Dean Berkeley, by teaching men to distrust their senses, teaches them to distrust his Book in the first place; it is but an idea like other things, every word and line in it: all his actions and great undertakings are but mere dream and chimeras; and his designs disappoint themselves in every respect. If once we refuse that reason which Dr. Clarke has assigned for believing the existence of external objects, and a material world; there is in truth no stopping till a man has denied every thing that exists without his own mind, except it be perhaps the existence of some delusory Being who constantly cheats and imposes upon him. How this can be such an antidote against Scepticism and Albeism is not easy to be imagined. We might with equal reason affirm,

affirm, I think, that putting out the eyes is *the best cure* for dimness of sight (*m*).

XII. It may not perhaps be foreign to the purpose, to take notice here of the contradiction in terms, which is pretended to be in asserting the existence of matter. It is (if any where) in Sect. 4. of Dean Berkeley's *Principles*; for in Sect. 7. he speaks of having *demonstrated his conclusion*; and in Sect. 21. he says, *Arguments, a posteriori, are unnecessary for confirming what, if he mistakes not, has been sufficiently demonstrated, a priori*; therefore in Sect. 22. he apologizes for dilating on that, which may, with the utmost evidence, be *demonstrated in a line or two, to any one that is capable of the least reflection*. In short, all that I could find for it is in that fourth Section, and contained in the following questions.—"For what are the forementioned objects [*houses, mountains, rivers,*] but the things we perceive by sense? And what, I pray you, do we perceive, besides our own ideas or sensations? And is it not plainly repugnant, that any of these, or any combination of them, should exist unperceived?"—This is but a sorry affair to be the subject of three new pieces. We shall consider it query by query, as it is proposed. And first, *What are the forementioned objects, but the things we perceive by sense?* This query seems not to agree well with the next. Here it is allowed that we perceive things by sense, or by the mediation of sense (for these things seem at a distance from the sense) which are supposed, and called objects (of sense it would seem); and in the next it is taken for granted, that we perceive nothing but our own sensations; that is, nothing by means of the senses. This is what one may call slight-of-hand reasoning. Let us join both questions in one. *What are the objects of our sensations, but those very sensations themselves?* This question proposed thus somewhat less jugglingly, implies or supposes the truth of this proposition. *Our sensations have no objects existing without the mind*: which is really the whole point in controversy. And to take this for granted, is to beg the thing to be proved; or to suppose the debate at an end. Those *mountains, rivers, houses*, we all suppose to exist without the mind; and although we should

(*m*) It is true, *Des Cartes* doubts of the evidence of sense; but it was only to shew it more certain afterwards; it was rather calling his knowledge to an examination; yet I humbly conceive his method was wrong; of which more immediately.



be wrong, it remains to prove that we are wrong, that being the whole of the dispute. To *affirm* this, or *ask* if it be not so, will never do any thing. We may farther add, since he allows objects perceived by sense in this query, that *sensations* cannot be objects to themselves: a sensation may become the *object* of a reflex act of the mind upon it; and it can become an object to the mind in no other manner. But when a sensation thus becomes the object of a posterior perception, it is not the object to itself (*n*). When a man beholds the *circulation* of the blood, by the help of a microscope, he doth not admire his own simple *perception*, more than when he beholds a pebble; but something, which he thinks at least, the *cause* and *object* of it. We might as well say, when a man laughs at some ridiculous thing, he laughs at his own laughter only. However, we may answer the question categorically: That these *forementioned objects*, [rivers, houses, mountains] are *the very things* we perceive by sense. This is a proper enough answer to such a question: and we may add, that these *objects* excite sensations in the mind, by motion, or acting on the organs; whether by reflecting the rays of light, by raising an undulation in the air, by immediate contact, &c. and this motion is propagated by the nerves to the brain, where the soul (there present) is apprized of them thus acting. Now, it is no matter whether what we say be true or not; though it be only a *conjecture formed at random*, if it assigns to sensations their distinct objects, without a *contradiction in terms*; this puts D. B. to the trouble of another demonstration, as much as if it were the real case that obtains.

XIII. His second question is, *And what, I pray you, do we perceive, besides our own ideas and sensations?* A consistent answer to this follows from what was said just now. We perceive, besides our sensations themselves, the *objects* of them: or we perceive objects existing from without, by the mediation of sensation, or motion produced; since we are conscious not only of sensation excited, but that it is excited by some cause besides ourselves; for we suffer it, often against our will. This cause we call matter: and D. B. says it is *God Almighty*. Hitherto there is no

(\*) At this rate we must say, that brutes have no objects of their sensations, since sensations cannot be objects to themselves; for they make no reflex acts of the mind, and there are no material objects from without, according to this scheme.

contradiction. He says it is *one thing*, and we say it is *another*: and so far he hath no reason to say we contradict ourselves, more than we have to say the same of him: nay nor so much. It is pleasant to observe D. B.'s address: he would have us to allow that *matter is a sensation*; or that our *sensations* are the same thing with their *objects*, which being the thing in debate, is still begging the argument, by an equivocal question. So he might prove that, if a man in a dark night were groping out his way, with a long pole in his hand, and felt something resist it, which made him turn another way, lest he should run his head against the wall; so he might prove, I say, that it were a *contradiction* for the man to say, there was any thing there, besides the pole itself, by *this same query* — For what, I pray you, says he, do you perceive, besides the pole in your own hand?

XIV. We may here again observe, as in N<sup>o</sup> 8. that this query of D. B.'s easily turns against himself. We say, that which excites sensations in us is generally the objects of those sensations, existing from without; unless in the instances of dreams and phantasies, in which there still is a manifest difference from ordinary sensation. He says, God, who is not the object of our sensations, is the immediate cause of them. How doth he disprove what we assert? Thus. You perceive *nothing* but your perceptions. The *cause* of your perceptions, which you assign, is not your perceptions themselves. Therefore you do not perceive this cause of your perceptions. Therefore *this cause of your perceptions is not at all*; or is but the same thing with those very perceptions. Here the fundamental reason of this inference is, because we perceive nothing but our own perceptions. But D. B. doth not perceive any thing but his own perceptions, more than other men: and if his not perceiving the *cause* of his perception, is a sufficient ground of *denying* such cause, or of making it the same thing with the very perceptions themselves; then, God, not being perceived, either is not; or is but a very perception in the mind of man: *Abst! blasphemia!* And thus his own argument will exterminate out of nature, any other cause of perception he pleases to pitch upon. He says, matter being once expelled out of nature, drags with it, &c. It is true, matter is but a contingent substance in nature; but being once expelled out of nature, it drags more along with it, in his method of reasoning, than he is aware of: and it drags least of all our sceptical and

and impious notions with it, as he pretends. To suppose it absent multiplies these notions without end.

XV. The last question in this demonstration, and which he designed should carry home the conviction of the whole, is, *And is it not plainly repugnant, that any of these [ideas] or any combination of them, should exist unperceived?* Here you see, he presumes you have allowed him, according to his last query, that *sensations* and their *objects* are the same thing; and on this presumption, his argument indeed is conclusive: but if you are not thus far complaisant, he is at a loss. And I answer, Our *ideas* surely cannot exist without the mind: but their *objects* may; and do. And they are still sensible objects, though they fall not under the senses, at all times and in all places: *i. e.* though they are not *objected to the sense*, in places where they are not; and at times when our senses are not directed to the places where they are. With respect to this it is observable, that he hath another very short way of demonstrating his main point. He *supposes* that the term [to *exist*] hath the same import, when applied to corporeal things, as to be *perceived* (*o*): asserting (strongly indeed) that it is otherwise unintelligible. Whence it clearly follows;  
Matter

(*o*) In the *Cyclopædia*, *loc. citat.*—This appears from the meaning of the term *exist*, when applied to sensible things. Thus, the table I write on exists: *i. e.* I see and feel it.—But the existence of unthinking Beings, without any relation to their being perceived, is unintelligible; their *esse* is *percipi*.

One cannot well pass by the argument here, without enquiring a little into the reasonableness of it. This proposition [their *esse* is *percipi*] is delivered with the air of an *axiom*; but if it be, it is incumbent on the *Author*, I think (who seems to be the first that discovered it) to shew the necessary connexion between the terms *esse* and *percipi*, in it. It cannot be said to be *self-evident*, on which account certain propositions were first called axioms; since others cannot find out the *self-evidence*, or even the *truth* of it. We say indeed with respect to the *Deity*, his *esse* is *existere*, because *necessary existence* belongs to his *nature*; but no body allows that *to be perceived* belongs to the *esse* or *nature* of matter: so that this axiom appears to me, after the exactest enquiry I am able to make, to be such an *axiom* as begs the question.

He argues from the meaning of the word [*exist*] that, when spoken of material things, it is the same as *to be perceived*; but who besides the *Author* himself, hath affixed this meaning to that term? Is it the common acceptance of the word, when applied to material things? Hath he the *Philosophers*, or even the *vulgar* on his side in this, as he seems to insinuate elsewhere? *Pythagoras* asserted that the earth was *spherical*, and *habitable quite round* [—*γῆν, καὶ αὐτὴν σφαίρειον, καὶ περιεχυσμένην· οὕτως δὲ καὶ ἀντίποδας· καὶ τὰ ἡμῶν κάτω, ἐκείνοις ἄνω.* Diog. Laert.] But he did not mean that the *Antipodes* did not *exist* because he did not *per-*



Matter which is *not perceived*, doth *not exist*! But the *Artificer* seems to understand that his *tools* exist all the intermediate time, after he lays them by at night, till he takes them up again next morning. And after this, it is unaccountable how this Author could pretend (Sect. 82.) that he doth not deny even corporeal substance, in the *vulgar sense*; but only inert, senseless matter: as if the Artificer thought his tools were *artful*, *sensible* matter; or disappeared when he had them not in his hands; or even then, were nothing but the *ideas* of instruments in the *ideas* of his hands. All this then ends in the following *childish sophism*: *Sensible things* are but the *objects* of *sense*. Whenever they are not the objects of sense, *they are no longer sensible things*. Therefore, when they are not the objects of sense, or not perceived, *they are not*. But would not D. B. allow his house to be a *combustible thing*, unless it were actually on fire? He might, with equal force of reason prove, that unless it were in flame, it were *no house* at all.

*cieve, i. e. hear and see them*; as he must have done according to our Author's acceptation of the word. Again, *Virgil* says—

*Est in secessu longo locus: insula portum*—

He doth not mean that the place he describes did not *exist*, because he was not there at the time to *look upon*, or *perceive* it. If it should be said, that *Pythagoras*, or *Virgil*, did not speak *philosophically*; we may be sure at least that they spoke *common sense*; and as all men have spoke both since, and before. Which shews his sense of the *term* to be quite new.

Moreover, what reason can be assigned why the existence of matter should be confined to *the being perceived*, more than the existence of other substance? If the reason of the Author's assertion be, That what is not perceived, neither *by itself*, nor *any other thing*, doth not exist, then any other substance (*the human soul*, v. g.) if it doth not always perceive itself, must have *intervals* of non-existence, as it ceases to perceive itself, or otherwise: at least the Author should have proved that it *always thinks*, to shew it has no *pauses* or *blanks* of existence. It is true, it must always think upon his scheme, having no restraint or interruption from matter; but then he will have a difficulty to explain, *how* it could be so affected without matter, as to make this appear doubtful. I might take notice of the *variation* and *proportion* of existence, (so to speak) the *rising* and *falling* of it, upon his scheme: for instance, The *Table* I write on, when I do not perceive it, *doth not exist*; but when I sit down to write on it, *it comes again into existence*. If another person perceives it along with me, must it have a *double existence*? and if three of us sit at it, must its existence be three times greater, than if I looked at it alone? And, lastly, if it were true that *being perceived* constituted the existence of matter, and *all created substance*, the *Infinite Mind* perceives them without intermission; and this will constitute the continued existence of matter upon his own principles, I think; unless he would say that matter *exists continually*, as the Deity perceives it, and *doth not exist continually*, as other Beings do not perceive it.

XVI. This is his demonstration. We may farther observe that it doth no great honour to this new scheme, nor those who pretend to admire it, that it forces the Author to suspect, that even Mathematicks may not be very sound knowledge at the bottom. In Sect. 118. he says, "To be plain, we suspect the Mathematicians are no less deeply concerned, than other men, in the errors arising from abstract general ideas, and the existence of objects without the mind." And in Sect. 119. he says, the theorems in Arithmetick are *difficiles nugæ*. A man ought to have a vast deal of merit, and to have obliged the world with surprising discoveries, to justify his attacking these sciences at this rate; or rather no merit possible can warrant it. And it must give us but a bad opinion of the notions that necessitate a man to declare himself thus. What necessity they lay him under, we shall see instantly. In Sect. 22. he expresses himself after the following manner. — "It is but looking into your own thoughts, and so trying whether you can conceive it possible for a *sound*, or a figure, or a motion, or a *colour* (*p*), to exist without the mind, or unperceived. This easy trial may perhaps make you see that what you contend for is a *down-right contradiction*. Inasmuch that I am content to put the whole upon this issue; if you can but conceive it possible for any one extended, moveable substance, or in general for any one *idea*, [here *extended moveable substance*, and *idea*, are supposed *species* and *genus*; in which case he is very safe] "or any thing like an *idea*, to exist any other ways, than in a mind perceiving it, I shall readily give up the cause. And as for all the *compages* of external bodies you contend for, I shall grant you its existence; though you can neither give me any reason why you believe it exists, nor assign any use for it, when it is supposed to exist. I say the *bare possibility* of your opinion's being true, shall pass for an argument that it is so." — This is very solemn! A man that is so generous had need be wonderfully secure of his conclusion.

(*p*) D. B. hath perplexed himself about the *sensible qualities* of bodies; and insists much upon it as a demonstration of the non-existence of matter, because these qualities cannot exist without the mind. But he might have observed that *heat*, for instance, is an *equivocal word*; and may either stand for the *sensation* excited in the mind, or the *quality* in external bodies, raising that sensation. It is very trifling, because the *first* cannot exist without the mind, to infer that the *last* cannot; to conclude, that because *sensation* is not in the fire, there is no *quality* in it to raise sensation in a sensitive Being. Here *figure* and *motion*, are nicely shuffled in with *colour* and *sound*; though they are qualities of a different kind.

XVII. But

XVII. But we take him at his word. Having shewn that his demonstration doth not conclude; and conceiving it very possible that the whole *compages* of external bodies may exist without the mind, and no ways in it; the argument is at end with him (q). No man can ever be seriously persuaded, that this Author's scheme is true in fact, let him use the utmost violence possible to his reason. The thing itself is of such a nature, that it will not admit of belief: so far is the contrary from being a *down-right contradiction*, as he says. And it is wonderful that he should be so peremptory in direct opposition to the sense of mankind. However, we shall go on to shew, in consequence of what was said in N° 6. how possible matter is; and that there is all the evidence for the real existence of it, that the nature of things can admit of, unless we will require the contradiction there named to be proved. And first, if matter had not been possible at least, no man would ever have had any idea of it at all. To omit the reason of this before given, (N° 6.) let us consider that whatever part of an idea is not perceived, is *no part* of it; its *esse* is really *percipi*. (See D. B.'s *Principles*, Sect. 132. as also his *Opticks*.) A part of a perception not perceived, is a contradiction indeed, being a part of it that is *no part* of it. Consequently a part less than the *minimum sensible* (see again Sect. 127.) is no part of it, or nothing. Therefore in the idea of a solid inch of matter, v. g. there is no part that might be expressed by this number 1,000,000,000,000 in the denominator, having unite for its numerator, (or we may make the number greater, for those who have very good eyes) such a part being less than the *minimum sensible*: or such a part is nothing at all. But if there be no such part; or if the million-millionth part is precisely nothing; the *whole idea* is made up of a million of million of *no ideas*: or the whole idea is no idea. For undoubtedly, a million or any number of nothings, will never make something: nor will any number of *negations* of an idea, ever make a *real idea*. Two, ten, a hundred, &c. *negations* of a thing, will never amount to the *thing itself*. Thus unless a *real, solid, figured substance*, were at least possible to exist without the mind, such a part of which would be a real part, of the same nature with the whole; our idea of the whole would

(q) It is to no purpose to insist longer on any thing contained in his Book. It will all be found to be a repetition of this supposed Demonstration. He carps very much in his Introduction at abstract ideas; but the usefulness and necessity of them is never a whit the less; a remarkable enough instance of which will appear immediately.



be impossible, and no idea. This follows from asserting such a scheme, as makes it necessary to maintain, that *whatever we perceive not of matter is not*, which this Author doth very explicitly (r). A little *abstraction of ideas*, to which he is such an enemy, would have been of use to him here. The same may be shewn concerning the ideas of *motion*, resistance, weight, &c. We do not perceive the resistance of an atom; therefore we could not perceive that of a cannon-ball: for the last is but so many times the first. And if the first be nothing, so many times *no perception* will never make perception. Again, we have no sense of a motion extremely slow, or extremely swift: therefore such motions are not. We have no perception of the motion of the index or hour-hand of a clock: and yet this *no perception*, so many times repeated, becomes real perception, with respect to the minute-hand (s).

XVIII. Again,

(r) Here we might ask a reason from the Abettors of this scheme, why our ideas do not reach the very intimate Essence of other things, as well as body! Our ideas come not up to those in the Divine Mind, with respect to body, more than other things.

(s) We may draw it as a corollary from the argument in this paragraph, That our perceptions in general *have no parts*, or are indivisible; and particularly that our ideas or perceptions of divisible, extended substance, are themselves *indivisible*, without *parts* or *extension*. If they were not, then the million-millionth part of the perception of an inch long, would be *some part* of it, or *perceived* by the terms. And from this again it will follow, that the percipient Being in us *is not matter*; because if our perceptions of length, breadth, figure, were in a material substance, they *should* necessarily have dimensions. For such ideas of figures would be then affections, or modifications of matter; but all affections or modifications of matter, must be inherent in the matter whose modifications they are. And if the perception or idea of a figure, be an *inherent modification*, or *affection of matter*; it is clear it *must inhere in all the matter percipient of it*, and therefore have equal superficial dimensions at least. And, secondly, Our perceptions of extension being without parts illustrates, and confirms what was said in Sect. 3. *viz.* That the soul hath no parts, or is a *simple, indivisible substance*. We must say, I think, that *all the soul is percipient*: if any part of it were impercipient that would not have the nature of *soul* (or of percipient Being). And if all the soul be percipient, and yet its perceptions *be without parts*, we must say that *it hath no parts*. If the soul were extended as matter is, certainly our perceptions would be extended, or have parts; *infinite divisibility of extension* would not only be conceived by abstract reason, but the actual infinitely little parts would be *pictured down*, if I may so express it; or they would be *as much perceived*, as any parts, and that by the terms being *parts of the perception*. And, lastly, from this corollary I ask the following question; If the faculty of imagination requires a *picture extended in length and breadth*, but no idea or perception, *as it is in the mind*, is extended, Does not the power of imagination as much infer a material sensory or organ, as a pure or simple perception requires an unextended or immaterial percipient? In imagination, or in sensation of visible objects, the perception *is not itself a picture*; but undoubtedly *it is the perception of*

XVIII. Again, *solidity, figure, divisibility, &c.* are either properties inhering in some substance ; or substance itself (*that thing*, to wit, in which properties inhere, which we call, and must call substance :) if they are substance, *solidity* and *figure* will prove a *solid, figured* substance upon us. If they are only properties, they are either properties of our ideas, or not ; if they are, then our ideas *are substance*, with respect to these *properties*, or the thing in which they inhere ; and therefore *solid, figured* substances. A thing that hath *solidity, figure, &c.* as properties belonging to it, or predicable concerning it, must be a *solid, figured thing*. But that our ideas should be such, as upon this scheme they must be, is monstrous. At least therefore, a substance must be possible, of which these are properties : for they are certainly properties of something. And if it be allowed that such properties exist now ; or that the thing exists to which they belong ; they will infer not only the *possibility*, but the *actual existence* of matter.

XIX. Again, all geometry is conversant about *quantity*. If there be nothing that can be called *quantum* in nature, or without the mind ; nothing to which *quantity* is *applicable* ; then we have a large body of fine demonstration, and men have discovered vast numbers of *eternal* and *undeniable properties* (as of a *triangle, circle ; cylinder, sphere*) precisely of nothing ; *immutable truths* conversant about an *impossible object* : which is strangely contradictory. It hath been always allowed that *nothing* can have no properties predicable about it, nor truths demonstrable concerning it. Our ideas are not *quantity* : to say that would be to deny again the principal hypothesis maintained in this scheme of *an utter want of extension* in *rerum natura*. And if we allow *extension*, why not an *extended substance* ? They are only ideas of quantity : and those truths are purely demonstrable of the *objects* of our ideas. No man ever spake of a *circular*

of a picture somewhere lodged. And if this be so ; imagination, as it is the perception of a picture, shews not only that the soul is immaterial, *but that it is united to a material sensory*, where the picture is impressed, and to which it applies for the perception of it ; or that matter exists. How far this argument is applicable to overturn D. B.'s scheme, the Intelligent will determine ; but *Cartes* himself, who, it may be presumed, shewed D. B. the way of calling material substance in question, says———*Nam attentius consideranti quidnam sit imaginatio, nihil aliud esse apparet quàm quædam applicatio facultatis cognoscitivæ ad corpus ipsi intime præsens* [the sensory] *ac proinde existens. Meditat. 6.*

thought ;

thought; a spherical, or triangular perception: the sine or tangent of a sensation would be a new monster in science. Where will these absurdities end? Nothing ever exposed men so much as this late species of Scepticism. It is a wonder it should find admirers; and among Mathematicians! For upon this scheme the object of their whole science is unphilosophically universal and abstract.

XX. Moreover, What a fine branch of knowledge have we concerning extended and resisting quantity, or body? The shock of bodies against each other, particularly of *elastick bodies*; their perpendicular and inclined descents; their motion, circular, or in other curves; their *centrifugal forces*; their *centers* of gravity, oscillation or percussion? What fine and surprising theorems, concerning bodies moving in, or supported by *fluids*? These truths have still nothing for their object. Our ideas are not *heavy*, *resisting*, *projectile*, *fluid*; capable of being *compressed*, or *dilated*; have no properties of *inflexion*, *refraction*, &c. To allow that our ideas had any of these properties, would be to allow them to be solid, resisting, figured, divisible *things*. And to say it is impossible there can be any *substance* of which these are properties; or to doubt only of this; is to doubt if several useful truths may not be found out, and demonstrations given, about *nothing*. Let me ask, What kind of philosophy would such propositions as these make; the *centrifugal forces* of two *equal ideas*, revolving in the same time, in unequal ideas, are as their distances from the *centers* of these *ideas*? Or, the *volumes* of *compressed* ideas, are reciprocally as the *weights* of the *superincumbent* ideas? Or, the spaces run over by an *idea*, falling by its own *gravity*, are as the squares of the times? This would still run more oddly if dressed entirely in the language of this hypothesis, thus: The *ideas* of the spaces run over by an *idea*, falling by the *idea* of its own gravity, are as the *ideas* of the squares of the *ideas* of the times: for here all must be expressed by *idea*, their objects being impossible. These are shocking to the last degree. It is no wonder that the men who broach this scheme, should bear a grudge to Mathematicks. They are diametrically opposite to each other: and if there be any truth in that science, this must fall. Or rather we may ask universally, the particulars in No 8. and 14. being also taken into consideration, what philosophy these men would retain; or what kind of knowledge would they leave to be pursued? Indeed what throws us into general and unbounded Scepticism, must strike at the roots of all science.

T t

XXI. But



XXI. But it will be said, could not *God Almighty* have excited all these ideas in separate spirits, and made them capable to investigate these properties of a solid, extended substance, which never actually existed? To this it is answered, that indeed *these truths* concerning a *solid, extended substance*, were eternally in the *Divine Intellect*, before such substance existed: but then surely they were truths only, with regard to that *substance* itself, and not with respect to *immaterial substance*; unless we should say that the real properties of matter, were applicable to, and true concerning a substance *not matter*. Thus, even Infinite Power could not prompt us with these ideas in respect of any thing but what we believe to be the *objects* of them, not of our ideas themselves. *Which, by the way, realizes our knowledge and philosophy about material things more than it is of late fashionable to allow* (t).

XXII. This being so; the next question is, Whether *God Almighty* (*a Being of infinite veracity*) would have made it necessary for all those separate spirits (whom we call *men*) to pursue and attain a knowledge, less or more, or at least an experience, of the nature of a *substance* which no way existed, as fancying that a great part of their ease and comfort depended upon *this*; and have so constituted them, that all of this species of Beings in the world, not excepting one, are verily persuaded, that they are continually conversant with this substance, and that it enters into their composition: the *question* is, I say, Whether this *Being* could have performed such a constant and universal *piece of juggling* (u)? If it could answer a good and wise end, that this substance should exist; *why doth it*  
not

(t) I beg that the following axiom of *Des Cartes* may be considered in this view, and it seems to me nothing needs be more evident. Axiom. 5. *Unde etiam sequitur realitatem objectivam idearum nostrarum requirere causam, in qua eadem ipsa realitas non tantum objectivè, sed formaliter vel eminenter contineatur. Notandumque hoc axioma tam necessariò esse admittendum, ut ab ipso uno omnium rerum tam sensibilem, quam insensibilem cognitio dependeat.*

(u) It is extremely absurd to suppose that *God Almighty* should have given us so costly an *apparatus* of senses, as *Anatomy* discovers ours to be, especially of *seeing* and *hearing*; made us capable of investigating the nature and method of sensation; of seeing the contrivance and wisdom, and the relation between the *object* and the *faculty*; and all designed only to misguide and deceive us, as if these were to be the organs for communicating the action of external objects, when in truth there is no such thing. This in the language of the present scepticism is, That *God excites* in us (or rather leaves us to *investigate*) certain wonderful ideas [of *eyes* and *ears*] for the reception of other ideas, [*men, houses, animals, &c*] which we are incapable of  
receiving

not exist? If otherwise; why make us believe a thing exists, whose real existence could have answered no good and wise end? Can any supposition lay God under a necessity of constantly deceiving his creatures? and his rational creatures too? Will not such a supposition contradict his reason and his truth? This will have all the force of a just demonstration to sober men. Besides, since no man can be certain of the existence of other men, upon this scheme; and since it is said that God excites in us all the ideas, which we fancy are excited by bodies; we must say that, when we think we are tempted by other men, to commit an *unjust* or *immoral* action, God immediately tempts us: and this, not only by exciting the ideas of the persuasives in the temptation (of the words and actions, to wit, which are nothing external;) but in formally *contriving*, and *suggesting* the *obliquity* of the sin we are tempted to; for, as hath been said, taking away the existence of their bodies, there is no kind of evidence left for the existence of the souls of men, who by the *abuse* of their *freedom* might tempt us. They who allow God to be a *Deceiver* as to the first, can make no scruple of supposing him to impose on us in the last. I might mention the influence of this *new refinement* on the lives and practices of men. Though the obliquity of actions rises from the will; he who thinks *theft*, *murder*, or *adultery*, nothing real beyond bare idea, and that for ought he knows, he injures *no body*, will be surely under less restraint to satisfy his inclinations of any kind. I might also mention the direct tendency of this improvement to *Atheism*. Men will hardly allow the exciting illusory ideas in our minds, of *beauty* and *order*, which no where really exist, such a proof of the power and wisdom of God, as an actually existing frame of material nature, where the *grandeur*, *harmony*, and *proportion* is permanent and real, existing from without, as well when we turn our thoughts *from*, as *to it*. And indeed it is not; for take away the existence of the material Universe, and all the surprising scene of Providence discovered above, Sect. 2. where the God of nature by *real power exerted*,

receiving by the ordinary manner, if these first ideas are any way disordered. And all the art and experience men have acquired, to procure themselves ease and relief from such disorders, is only at the bottom helping an *idea* that is *distempered*; a mere juggle (as I said) played upon us by the Author of our nature. Let me suppose that the Deity himself possessed us with a notion, that our bodies were made of *China-ware* or *Glass*, (*vel caput habere fictile, vel totos esse cucurbitas, vel ex vitro conflatos*, as *Cartes* says) and then ask, If that would be a greater imposture, than the present, on our Author's scheme?

constantly preserves the world, and influences every *particle* and *atom* of this substance, by incessant, various, wonderful *impulse*, ends in a dream and chimera. In that case no power could be exerted but to delude us. How could we believe the abilities of a Being, who was forced to have recourse to a deceit, to raise in us a notion of them? Or what opinion must we have of his wisdom and address, when we ourselves can detect the imposture? How much better is it as otherwise ordered! We cannot *convince God of a lye*; nor shall we be able *in an after-state* to say, he deceived us *in this*. What a noble school is the frame of nature, where we see the Creator's mighty power put forth, in constantly moving and regularly directing, the vast, unwieldy bulks of dead matter; where all the works are real, nothing phantastical! How would it grieve a rational mind to think that all this was performed in shew only; and our ignorance laid hold on to raise our amazement! Doth it not appear that the good and wise end designed, and in some measure attained by the real existence of the material world, is to train us *rational Beings* up to the knowledge of the perfections of the Deity, in a way adapted to our nature and capacities?

XXIII. Now to return to where we began. Matter is *possible*, as hath been shewn just before; but not *necessary*, as hath been also shewn: What kind of evidence, or demonstration then, would we have for the existence of such a substance, which we have not? In reason and philosophy, its existence should be known from the *effects* it produces, or the *perceptions* it excites in us, and the *perfections* of that Being, who constituted it and our nature such, that it should act, and we perceive it acting. To expect we should know it *without sensation*, is to demand a proof of its existence, inconsistent with the very idea we have of it. To insist that its existence should be investigable by abstract notions, tho' we get our ideas originally from sense, by which matter must first enter, is to shew a great *unskilfulness* (v), or a *fixed resolution* to doubt; it is to suppose it a *necessary*, and not a *contingent* Being. Its existence hath no eternal necessary properties belonging to it; nor the existence of any thing save the Deity. Therefore I conclude, that the knowledge of the existence of external ma-

(v) Mr. Ramsay observes well, *La source du Pyrrhonisme vient de ce que l'on ne distingue pas entre une démonstration, une preuve, & une probabilité. Une démonstration suppose l'idée contradictoire impossible; une preuve de fait est, où toutes les raisons portent à croire, sans qu'il y ait aucun prétexte de douter; une probabilité est, où les raisons de croire, sont plus fortes, que celles de douter.* Travels of Cyrus, Book 6. in the Dispute between Pythagoras and Anaximander.



terial objects, by sense, is *certain knowledge*, and the evidence as great, as possibility, and the nature of things can admit of; and therefore, as great as the reasonable soul (as such) can desire (x).

XXIV. Before we put an end to this Section, it will not be amiss, in consequence of what has been said N<sup>o</sup> 1. to take some farther notice of the ridiculous cause that hath raised all this doubting concerning the *existence of the material world*, and carried some to deny directly the possibility of any such thing; *viz. That we have no certain mark to know whether we are awake or asleep.* This is what a man of plain, common sense would laugh at: only *Philosophers* think it enough to prove the world may be *nothing* rather than *something*. In an objection made to *Des Cartes* concerning his doubting, the *Objector* readily grants, There is no mark to know which of the states we are in, and only finds fault with *Cartes* for publishing, as a new method of doubting, that which *Plato* and *others* had broached

(x) Mr. *Locke* says, (Book 4. chap. 2. sect. 14.) "So that, I think, we may add to the two former sorts of knowledge, this also, of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them; and allow these three degrees of knowledge, *viz. Intuitive, Demonstrative, and Sensitive*; in each of which there are different degrees and ways of evidence and certainty." See also chap. xi. of the same Book. Mr. *Ramsay* in the place just now cited, says, — "*Je crois qu'il y a des corps, non sur le témoignage d'un seul, ni de plusieurs sens, mais sur le consentement unanime de tous les sens, dans tous les hommes, dans tous les temps, & dans tous les lieux. Or comme les idées universelles & immuables nous tiennent lieu de démonstrations dans les sciences, de même l'uniformité continuelle, & la liaison constante de nos sentiments, nous tiennent lieu de preuves, lorsqu'il s'agit de faits.*" — After this let me observe, since this scheme denies the existence of matter, contrary to the testimony of sense; and since the Epicurean scheme allows of nothing but matter, from the testimony of sense, setting the certainty of sense above that of reason, (see *Lucr. lib. 1. ver. 420. & seq.*) let me observe, I say, that it is not easy to conceive, how these two should agree in this particular of the testimony of sense; though it is observed in the *Cyclopædia*, under the word [*fallacy*] they do. — Lastly, (says the Author) "*Reason cannot shew our senses*" mistaken, since all reasoning depends on previous sensations; and the senses must first be true, before any reasoning founded thereon, be so. Thus the Epicureans; whose system is strongly confirmed, by what we have already laid down from *D. B.* concerning the external world." These two seem to me to agree in nothing, unless in perverting all true philosophy — Yet (says the same Author, under the word *Abstraction*) has a late eminent and ingenious Author *D. B.* contested the reality of any such ideas [*viz. abstract*] and gone a good way towards overturning the whole system, and consequently towards setting our philosophy on a new footing.

Long

long before him (y) : which, by the way, is a strange sort of an objection. The inconsistency of this *doubt*, or this question, is plain, I think, in that no man has a right to make it, but he who hath experience of both the different states. If he has only been in one of them, he can know *no difference*, and therefore be in *no doubt* : and if he has been in both, and remembers a difference, he must know it ; and therefore is obliged to answer himself, as having a conscious experience of the thing he desires to be informed in. Since sleep is a state in which the faculties of the soul are obstructed, or impeded, by the indisposition of the matter of the body, especially memory ; since this is so, I say : for a waking man to desire a *mark* or *sign*, whereby to know if he be awake, is as if he should desire another man to tell him, *Whether he hath the powers of his soul at liberty or not ?* which he himself can know best. The soul hath not some powers to be impeded, and *other powers* of the same kind to remain still free ; it should then have *two consciousnesses* ; therefore it is improper to ask, if a sleeping man can have a mark to know whether he sleeps ? nor is it less improper for a waking man to ask a mark to know if he be awake. In the *first case*, there is a want of consciousness of the state we are in ; and in the *second*, a consciousness that we are not in the *first state* : what doubt can there then remain here ? If the powers of the soul were not impeded in sleep, that state would not differ from being awake, except in the indisposition of the body : but since it differs so widely otherwise, who can be excusable in pretending not to know the difference ? At this rate, men might ask a sign to know, whether they are blind, or not, or how they can be certain that they are in their sober senses, rather than mad (z) ; and whether, when they are conscious of a thing, they can be sure that they are conscious of it (a).

## XXV. Thus

(y) *Satis constat ex iis quæ dicta sunt in hac Meditatione [prima scil.] nullam esse experientiam, quo somnia nostra à vigiliâ, & sensone verâ dignoscantur ; — veritatem hujus meditationis agnoscimus. Sed quoniam de eadem incertitudine sensibilibus disputavit Plato, &c.*

(z) Pyrrho indeed, and the Scepticks, seem to deny a difference between *these two*. — *ἐδὲ γὰρ οἱ πεινόμενοι παρὰ φύσιν ἔχουσιν. Τί γὰρ μᾶλλον ἐκείνοι ἢ ἡμεῖς ;* but to defend this, was, I think, to *own themselves mad* in effect.

(a) The argument in this paragraph, which is said not to be intelligible enough, would perhaps become plainer, if we should ask the question, *Whether it is a waking man, or a sleeping man*, who proposes the doubt ? And to this we may reasonably expect an answer, since the *doubt* supposes a *difference* of the two states, and that this difference *hath been observed* ; for otherwise the ground of doubting vanishes. It may, I think, be probably supposed that

XXV. Thus much of the different *state* of the mind itself in these two conditions, of sleeping and waking, which brings the *τεμπήσιον* sought to *self-consciousness*. But the great difficulty pretended, is, *How can we be sure that any thing exists?* All from N<sup>o</sup> 1 to 24. is an answer to this; to which let me add, that, if we never dreamed in sleep, we should not at all doubt of the *existence* of the frame of nature. But have we less evidence now, than if all were a *blank* then? Or can the existence of the world depend upon the indisposition of our bodies, or the different state of consciousness of our minds? Suppose a *whole nation* of men should never dream, (see N<sup>o</sup> 33. Note (c) of the last) and *another nation* never sleep, while *we* both sleep and have visions in our sleep; can the *standing* or *falling* of the fabrick of the universe depend upon *this diversity*? We see the heavens represented in a *pool* of standing water, and images reflected from a *mirrour*: is that *heaven*, or the images of these objects less real, because the stars are made appear *below* the ground; or men, trees, houses, represented

Plato, and Cartes were awake, when they proposed this *nice* and *philosophical* manner of doubting; and that they started it from some experience of the two different states, otherwise they would still have doubted without reason; and yet that *very experience* answers the doubt. The *doubt* could never be greater than the *experience* on which it was founded: If this experience is supposed *nothing*, the doubt becomes *nothing* at the same time; and the *greater* the experience is supposed to be, the doubt becomes the *less*; since much experience of the *difference* could best teach them that *difference*. This, I presume, makes the argument intelligible; and shews the *inconsistency* of such doubting, if a man allows himself to be awake. And if he says *he dreams when he doubts thus*, what he owns here also answers itself; when he awakes, he will find it but a dream. Besides, he owns the *difference* between dreaming and not dreaming, and the former argument will still be applicable.

But allowing the *Scepticism* to be pushed as far as may be. If one should say, "I never dreamed in my life." (Since some of *these men* affirm this of themselves) what reason would he have for asking a *επιτήρησις*, whereby to distinguish *dreaming* from *not dreaming*, when he owns he never dreamt in all his life? And if he should say, "I had such a dream last night, and was verily persuaded of the *real existence* of the things seen; and why may not the things I see and hear now be as phantastical as these were?" I answer, first, he is incapable of being satisfied; because, on his own principles, he will still have equal reason to think any answer as phantastical as the *person* [or rather *φάντασμα*, according to him] who gives him the answer: and therefore, as I said in the beginning of the Section, he should for ever hold his tongue, and doubt on in silence. When he desires satisfaction, he supposes the *reality* of the thing he pretends to doubt of. This is always the fate of *Scepticism*. And, secondly, when he says, "He dreamed last night, &c." He owns he is awakened out of *that dream* now, otherwise he could not perceive that it was but a dream: Or else he must allow he is still



presented as hanging *above us*? What if some idle Philosopher had made this a handle to become a learned Doubter? Though perhaps we might have had another Denomination of Scepticks from this man; that would not however have made the existence of heaven and earth less certain. This may be thought a strange supposition; and yet the *Scepticks* pretended to doubt of the *existence of material objects* on this very account; viz. from the *different appearances* they made by mirrours. — *ἢ ἡ αὐτὴ δὲ μορφή τῶν τὰς διαφορὰς τῶν κατόπλων ἄλλοια θεωρεῖται ἀπολυθεὶ οὐκ μὴ μάλλον εἶναι τοῦτον τὸ φαινόμενον, ἢ ἄλλοιον.* Diog. Laert. Pyrrho. And as this very phenomenon of exhibiting the appearances of things by the *pool*, or the *glass*, supposes and proceeds from the *reality* of external objects existing: so even our dreams, though they have no external real objects, yet *suppose such*, and are exhibited in imitation of them; and upon this account deceive us. Therefore, rightly considered, they bring no argument against the real existence of material things, but rather one for it. Thus *Cartes* himself says (though against his own purpose) in the same place where he proposes his *universal doubting*, — *Tamen profectò fatendum est visa per*

still dreaming on; and, as I said, whatever answer is made to him must still appear a dream. If he should say, "I am not certain whether I ever dreamed in my life, or not." It is as if he should say, "I am not certain, that ever I was in a different state of consciousness from what I am in at present." And then why should he demand a *κριτήριον* or mark to know which of the two states he is in, who never observed any difference? He can have no doubt of the *reality* of external objects, who was never imposed on, by being made to think *phantastical* objects real. And how could any answer give satisfaction to such a man? If he thinks all things real, he will need no satisfaction; and if he thinks them *phantastical*, the answer must appear to be *such*, as much as all other things. In a word, he hath either perceived a difference of the state of consciousness he hath been in; or he hath not: if he hath not, he can have no doubt; and if he hath observed a *difference*, he should consider that difference, and is obliged to answer himself, as having a *conscious experience* of the thing he desires to be informed of. For it is *mere humour*, and in effect *absurdity*, for a man to say, "Inform me of a particular, of which I have experience in my own consciousness, from your experience of it in *yours*; since *self-consciousness* of what passes in one's own mind, is the *last appeal* in all controversy.

From all this, it appears still more plain, I think, that *Scepticism*, in any shape that may be given it, is inconsistent with itself, in supposing the thing concerning which it pretends to doubt; and therefore it defeats its own design every way. Whence it must appear a very *extraordinary attempt* to endeavour to raise doubts, in spite of the *absurdities* that attend doubting, and to render *truth* suspected without any ground. Though I were able to perplex plain and well meaning men, by this subtil kind of doubting; I must be conscious to myself of a dissingenuity and perverseness in the *undertaking*; unless I also shewed them a way how to get free of such *puzzling sophistry*.

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quietem esse veluti pictas quasdam imagines, quæ non nisi ad similitudinem rerum verarum fingi potuerunt—— This is remarkable in itself; but still more so as said by him, and on such an occasion too. He continues—— Ideoque saltem generalia hæc, oculos, caput, manus, totumque corpus, res quasdam non imaginarias, sed veras existere: nam sanè pictores ipsi, ne tum quidem, cum sirenas & satyricos maxime inusitatis formis fingere student, naturas omni ex parte novas iis possunt assignare, sed tantummodo diversorum animalium membra permiscet; vel forte—— In our dreams we have representations of some things that cannot be imaginary, as figure, magnitude, number; and of some that are necessary, as time, place: every vision must have duration, and a scene of existence. So Cartes in the same place——cujus generis esse videntur natura corporea in communi, ejusque extensio; item figura rerum extensarum, item quantitas, sive earundem magnitudo, & numerus: item locus in quo existant, tempusque per quod durent——(Meditatio I.) From this the *Intelligent* will see that dreams are but superficially considered, when they are made a pretence for doubting; and that Cartes himself cuts off the chief pretence he had for calling in question his former knowledge; though with the design of becoming more certain, and placing it on a surer foundation than it formerly was.

XXVI. Let me here observe to young people, who have not perhaps considered it before, that this great Man was not able with his utmost effort seriously to doubt of every thing. Having alledged all the reasons for doubting in his first Meditation, that he could think of; he is forced at length to come this, *That if he could not doubt on other terms, he would designedly deceive himself by doubting.* His words are, *Quapropter, ut opinor, non malè agam, si voluntate plane in contrarium versâ, meipsum fallam, illasque omnino falsas imaginariasque fingam, donec tandem velut æquatis utrimque præjudiciorum ponderibus, nulla amplius prava consuetudo judicium meum à rectâ rerum perceptione detorqueat.* As if he had said, “If I cannot doubt with my eyes open, let me shut them: if I cannot believe things false, let me suppose them false against my belief”. Is it not plain here, he only said he doubted, without being able to do so? Those things could not be called prejudices, with which he was forced to take this method. A man should not doubt, where he is forced to feign causes of doubting (b). And in the Synopsis of his Meditations, he says, (speaking

(b) If any one doubts that he may become more certain, and is forced to feign causes (nay to deceive himself) that he may doubt; I ask if he can become more certain by this method

ing of the external world, the bodies of men, and other things of that nature) *De quibus nemo unquam sanæ mentis serid dubitavit.* The other great reason he assigns for universal doubting, is the very worst, I think, that could be given; the supposition, to wit, *that God may be malicious and a deceiver.* *Quid autem nunc ubi suppono deceptorem aliquem potentissimum, & si fas est ita dicere, malignum, datâ operâ in omnibus quantum potuit, me delusisse* — May we not here say, that this is a costly way of doubting, which forces *Des Cartes* to make an *almighty devil* of the Deity before he can make his doubting feasible? They who have the lamest notions of the Deity, conceive him as something perfect: he says elsewhere, *Ex quibus satis patet illum [Deum] fallacem esse non posse: omnem enim fraudem, & deceptionem, à defectu aliquo pendere, lumine naturali manifestum est.* If this is plain from the light of nature, especially to such men as *Cartes*, and I believe no body will deny it; was it philosophical in him to suppose God a deceiver, merely that he might doubt of truths, which otherwise forced his assent? Pray observe whether I do him injustice. He says, *Nam siue vigilem, siue dormiam, duo & tria simul juncta sunt quinque, quadratûmque non plura habet latera quàm quatuor; nec fieri posse videtur ut tam perspicuæ veritatis in suspicionem falsitatis incurrant:* and yet in the very next sentence the reason why he doubts of these self-evident truths, is no better than because God may be a deceiver. Is it not mighty inconsistent to suppose an *evidently false thing* true, that he may be at liberty to suppose *evidently true things* false? But leaving this, I shall only observe, that the manner in which he ends his meditations is very remarkable — *Sed hyperbolica superiorum dierum dubitationes, ut risu dignæ sunt explodendæ, præsertim summa illa de somno, quem à vigiliâ non distinguebam; nunc enim adverto permagnum inter utrumque esse discrimen* — By speaking thus [*nunc enim adverto*] *Des Cartes* would have it thought, that he had got, a *new light* from this manner of universal doubting: though one must be at a loss to conceive whence the light could come. Could he not perceive the difference between *dreaming* and *not dreaming*, till he had first called in question the truth of self-evident propositions? Must every individual man follow this method, before he can tell whether he be awake, or asleep? Or can the forcing ourselves to suppose God an *Almighty Deceiver*, be the only way to discover that he is a Being of infinite veracity! Whatever *virtue* such a method of doubt-

than he was before? Or if being reduced to the necessity of such a method before he can doubt, be not itself the greatest mark of certainty.

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ing may have, to open a *Philosopher's* eyes ; I am sure it will never open any body's else. The only thing I can find worth our imitation through the whole method, is *the exploding this hyperbolical doubting, as deserving our laughter* ; though it was inconsistent in him to speak thus of it, if it had served him for such great purposes (c).

(c) I shall here take notice of some exceptions made to the reasoning in some of the preceding paragraphs, and endeavour to remove them. It is observed, that D. B.'s scheme takes away the existence of *other minds*, and perhaps of *our own*, and of all sorts of *substrata*, as they are called ; and therefore that most of what I have said seems right. But then it is added, " It is true, one *Sovereign Mind* may be sufficient to produce all these ideas ; and many Philosophers affirm, that *He* actually produces them in us, though they allow the *objects* to exist. The question is, Whether he produces them according to a certain order, and certain laws established by himself ; or whether he produces them agreeably to the real state of a certain *third object*, which we call the *sensory*. D. B. will say, that the *order* and *laws* which rule their connexions and appearances in our minds, are in every respect the same to us, as the real existence of the material Universe. From *this order*, he will answer your query, How he can *communicate* his thoughts to others, on which you seem to lay much stress. And this order will serve him to answer your queries about the beauty of nature, and of natural philosophy.——If he had contented himself with denying the actual existence of matter, he would have avoided many absurdities."

In answer to this, I own, first, I do not see that D. B.'s reasoning takes away the existence of *our own minds*, or invalidates *Des Cartes's* principle, *Cogito ergo sum*. Those *Philosophers*, who allow the *objects* of our ideas to exist, affirm, I think, without necessity, That the *Sovereign Mind* produces the ideas of them in us ; in so far I mean, as the *objects* themselves may do this ; or otherwise than by *co-operation*. Matter, I know, cannot act of itself ; or it acts only by resistance ; but if the resistance between the matter of our bodies and other matter, be enough to excite the idea of that resistance in our minds, it would be unnecessary to suppose *God* to excite the idea, and the resistance itself to have no effect. And if we do not allow that the matter of our bodies affects our minds directly, and by itself ; the union between them will seem in a great measure to no purpose. The reason, I believe, why those *Philosophers* affirmed that *God* excited the ideas of matter, and material action in our minds, was, because we cannot formally conceive the manner how *matter* affects *spirit*, or how *spirit* acts on *matter* ; but we are certain this is matter of fact in many instances, whether we conceive it or not. The Deity himself moves matter, in almost all the phenomena of nature ; and the soul of man perhaps moves some matter of the body, though in an infinitely less degree.

And as to the manner in which our ideas are produced ; though they are produced agreeably to the real state of a certain *third object*, which we call the *sensory*, they are nevertheless produced according to a certain order and laws established by this *Sovereign Mind* ; the one of these doth not exclude the other. To allow this *third object*, the *Sensory* namely, is all that is desired. To allow this, and contest the existence of *material objects* would be inconsistent.

D. B. cannot answer my first Query concerning communicating his thoughts to others. For if any Being excites the ideas of *other men's bodies* in us ; if, as he maintains, it is impossible and contradictory there should be any such bodies ; and if it be from these delusory ideas which

*this Being* excites in us, that we infer the existence of other men's minds : how can he be certain of the existence of their minds, which he collects from false appearances ? 'Tis he himself who has made the foundation of all a cheat and imposture. But supposing the *same Being* excited in us directly the ideas of other men's minds ; how could we have a greater certainty in the one case than in the other ? The veracity of *this Being* becomes now suspected. And why should we trust him again after a former illusion ? *Cartes* only supposed, but this *Autor* endeavours to prove him a Deceiver. He should by all means have given a Demonstration of the existence of men's minds, when he asserts the existence of their bodies impossible, by which only we inferred the existence of their minds. And if the argument which I have taken notice of in N<sup>o</sup> 9. be good ; he can offer no proof for the existence of their minds, which will not equally prove the existence of their bodies. So difficult is it, I conceive, to answer this Query. Besides, how can it be said that D. B. may answer this Query ; and yet at the same time be owned, that his reasoning takes away the existence of *other minds*, nay and perhaps of our own too ?

Nor do I think he can answer the *other Queries* concerning the beauty and order of the Universe. Can a thing impossible and contradictory have any beauty, or order, or, in general, any property ? I have shewn in N<sup>o</sup> 21. that even *Infinite Power* could not prompt us with the ideas of this beauty, order, or properties, any farther than as they relate to these very objects, which are controverted. And if these objects be impossible to exist, it is farther evident, that the *Infinite Mind itself* could have no ideas of them ; for of an impossible thing there can be no conception. We must necessarily therefore, in explaining the *phenomena of nature*, suppose the existence of the objects of our ideas ; since these *phenomena* are true only of the objects of our ideas, not of our ideas themselves. What I mean is, though we conceive the beauty, order and proportion in the Universe by our ideas, we do not conceive these to be beauty, order, or proportion exhibited in our ideas, but in the things we suppose the objects of them. I have shewn in a place or two above, what ridiculous philosophy it would make, to substitute our ideas instead of the objects of them. Therefore, I think, D. B. could have no reason to say, That the order and laws which rule the connexions of our ideas, and appearances in our minds, are in every respect the same to us as the real existence of the material Universe. This, I conceive, is a great mistake ; and the generality of men allow too hastily, that it is consistent enough with philosophy to suppose nothing but ideas, instead of the objects of ideas ; and that demonstrations may be given, and the phenomena explained, as well upon the one supposition as the other. This is that which hath made D. B.'s scheme appear so impregnable, and in effect not altogether absurd ; whereas in truth, no one appearance in nature can be explained, nor any one proposition in abstract geometry demonstrated, without supposing the objects of our ideas, instead of our ideas themselves.

As this is the main difficulty, I shall endeavour to make it plain by an instance or two. It hath been shewn in N<sup>o</sup> 17. that our ideas, as they are in the mind, have no parts nor magnitude ; and our Author's scheme supposes, or rather asserts this. A want of extension in *rerum naturâ* is the great principle. Let us then take this proposition, In a right angled triangle, the square of the hypotenuse is bigger than either of the squares of the other sides (as being really equal to them both). Now this proposition is directly false, if you substitute the idea of this square instead of the square itself, which is the object of the idea ; for this idea hath no parts nor magnitude whereby to exceed the other ideas ; and it is absurd to say it is either greater or less than another idea, or equal to two or more, or to institute any proportion between them ; for all such proportion is in respect of dimensions or magnitude, which can never

be applicable to ideas, either in reality, or on the Author's Scheme. And the argument is the same in respect of all *lines, surfaces, solids, angles*; every thing about which geometry is conversant. And as to *philosophy*, I need not give an instance in it, after what hath been said in N<sup>o</sup> 20. If we apply this proposition [*The spaces run over by a body, falling by its own gravity, are as the squares of the times*] to our ideas, instead of their objects; it is downright nonsense and contradiction. In short, it is as trifling and sophistical, because all demonstration is in ideas, to say it is conversant about no object but ideas; as it would be to say, because all demonstration must be pronounced in words, or written on paper, it can relate to nothing but the words it is pronounced in, or the paper it is written upon. Omitting therefore other instances, I shall give one, which seems to prove directly the existence of objects without the mind, and that from the perceptions of the mind itself.

If our ideas have no parts, and yet if we perceive parts; it is plain we perceive something more than our own perceptions. But both these are certain; we are conscious that we perceive parts, when we look upon a house, a tree, a river, the dial-plate of a clock or watch. This is a short and easy way of being certain that something exists without the mind. We are certain of this from consciousness itself; since we are as conscious that we perceive parts, as that we have perceptions at all. And this argument proves at once, and from the same perceptions, the existence of both the parts of our composition; (see the Note (r) N<sup>o</sup> 17. above) and therefore makes the existence of both equally certain. Our ideas as they are in the mind, are without parts; and as they make us conscious of perceiving parts, we are conscious that an extended object exists without the mind, where the extended image is exhibited, viz. an extended sensory. Our very sensations, and the faculty of imagination, as much prove the existence of this sensory, as they prove the existence of the sensitive Being; and this whether it be in a dream, fever, or any way a Sceptick pleases to suppose, provided only parts be perceived. The wildest chimeras in sleep prove the certainty of the thing they were brought to render suspected. If these Sensories were not, there would be no such illusions: and if some other cause than matter, did not make these impressions, there would be still no such illusions. Our sleeping sensations infer the existence of one cause more, than our waking sensations shew us.

I am persuaded, if Des Cartes had observed this property of our ideas as they are in the mind, viz. that they are without parts or extension, (and the definition he gives of an idea which I have quoted above, leads him directly to it) he would have owned that the same perception of parts proved to us the existence of both substances. He does indeed in some places point full at this truth. *Præterea* (says he) *ex imaginandi facultate, quâ me uti experior, dum circa res materiales versor, sequi videtur illas existere*. He saw here there was no other way of accounting for the faculty of imagination, but by the existence of a material sensory. It were to be wished, he had gone a little farther. But he comes still nearer below. — *Ad hæc considero istam vim imaginandi quæ in me est, prout differt à vi intelligendi, ad mei ipsius, hoc est, ad mentis meæ essentiam, non requiri; nam, &c.* Meditat. 6. How near is this to proving the existence of both Substances from the same perception of parts or extended images!

One who considers this argument, can make no objection to it from the images formed by specula. For these are extended, and prove what I advance, as much as any appearance. In this instance, magnifying the image, i. e. enlarging the extension of it, is the great end proposed. And every one knows that such images are formed by rays of light, which are corporeal things. Neither can there be any objection from the power of an omnipotent Being, who may exhibit extended, figured images, without any extended, figured subject, in which they may inhere.



inhere. To bring in Omnipotence to help out an objection, by performing a contradiction, such as, to make *properties* exist by themselves without a *subject*, is ridiculous to the last degree.

Others will determine how far this realizes our knowledge concerning matter and material objects. Mr. *Locke* speaks of *sensitive knowledge* with much fairness and candor, giving it the third place, or making the degrees of our knowledge to be *intuitive*, *demonstrative*, and *sensitive*; (see Note (\*) N° 23.) but with much submission, the existence of matter in general, or at least of material Sensories to which the soul is united, seems to me, from what has been said, to be nearer *intuitive* than *demonstrative* knowledge, if the same *perception* of parts, proves to us both the *spirit* and a *material sensory*. Be it as it will there is but one step in the Demonstration, *viz.* to shew that perceptions, as in the mind, have no parts. But D. B. confounds *perception* as in the mind itself, with the *image* perceived in the sensory; and thus endeavours to make our own perceptions of no use to us in shewing us the existence of matter. We had the *condition* in our own *consciousness* and *perception*; but he made us believe we had it not; and then we were at a loss to find it any where else. A certain great *Author* seems to follow the same tract. — "But thought (says he) we own pre-eminent, and confess the real-  
" left of Beings; the only existence of which we are made sure by being conscious. All else  
" may be only dream and shadow. All which even sense suggests may be deceitful; the sense  
" itself remains still; reason subsists; and thought maintains its eldership of Being, &c." This is carrying things too far. From what has been said just above it appears, that we are sure of the existence of matter by being conscious, or having perceptions of some kind; that as long as sense or sensations remain, this is certain; and that our very dreams shew that all else is not a dream. This Author elsewhere makes matter as necessary as *thought itself*; and here he says, all that sense suggests may be but a dream. It is hard to reconcile this. If matter be as necessary as thought, and yet but a dream; nothing at all will be left real.

From what is here said it will follow, that separate Spirits have a superior power or faculty of conceiving extended substance, and not our formal manner of *imagination*; but this, I think, is as it should be; agreeable to reason and philosophy. We are under a necessity, as hath been said before, of applying to impressions on the sensory; being by our union kept at a distance from the objects of sensation: in such a state the sensory must be a *necessary artifice* to supply that defect. Hence our present *imagination* and *reminiscence*, are but a kind of *vicarious faculties*, in which separate Spirits must exceed us. These inferior *helps* seem in them to be swallowed up in *intellect*, or the best way of conceiving. That wonderful appearance taken notice of in the end of the last Section, makes this in some measure conceivable. That there is a Superior way in this case is certain. The Deity is not confined to our narrow faculty of imagination; every thing is *intellect* in him. It may be so in a lower degree in created separate spirits. All this is more intelligible and reasonable than to run into the contradiction of asserting that living Beings can know, or perceive nothing, when not confined to dead matter. But to return.

As to what is said, that if D. B. had contented himself with denying the actual existence of matter, he had avoided many absurdities; I must observe that this is a common mistake, and too readily allowed by us. It should be considered, that if he had granted the existence of matter a possibility, he could not have had one argument for denying it to exist actually. Why deny a thing which is allowed possible enough to be, and which hath all the reasons that the nature of things can admit of, to shew that it actually is? To have written Books then against the

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actual existence of the Universe, would have appeared, if possible, a more extraordinary attempt, than the present. Let any one, to satisfy himself, try if he can find out a reason, on this supposition. — "It is very possible the world may exist, yet it is certain that it doth not really exist, because —". Or thus: "There is no impossibility in supposing myself to have hands, feet, and a body; and yet nothing is more true than that I have neither hands, feet, eyes, nor ears, for —". It is not conceivable what plausible reason a man could assign to fill up these arguments. But let us suppose that one should recur to the great topick and pretence for doubting, viz. our dreams, and say, "I find that I am often imposed upon and deceived in dreams; therefore, &c." I reply; "Those things which you dream of, and see in your sleep, really exist; and it is very possible for the same individual Being to become a man, a brute animal, a monster, &c. successively, as you see it represented. How can you disprove this apparent existence; or shew it not to be real, and that you are imposed upon in sleep? — By the testimony of your senses perhaps; since you neither hear nor see these things when you awake? — I answer, This is ridiculous in you; you are inconsistent with yourself; you make opposite reasons conclude the same thing; you have quite thrown aside the testimony of your senses, when you conclude against that testimony, that the material world doth not really exist. If sense can prove any thing, your whole scheme is an absurdity." Thus these men cannot prove a dream to be a dream on their own principles: The reason is, they suppose all a dream antecedent to any proof, and make use of that supposition as a proof; as was argued in the beginning of the Section. This comes from casting off the testimony of sense. There is no laying aside the methods of certainty which God hath appointed; and finding any consistent *succedaneum* in the place of them. We stumble from one absurdity to another, till at length we are lost amidst the inextricable mazes of error and contradiction. And from all this it appears, that to allow the existence of the material world possible, and yet deny its actual existence, is at least as difficult as the method D.B. has taken to deny it; he had not another possible method to answer his purpose, but to pretend it could not exist.

Some other objections have been made, but not urged with that candor, strength and accuracy as the former; however, I shall mention them. One is, "That the existence of material objects may be called in question, from the different appearances they make, when placed at different distances from the eye; for why should they have one magnitude, or figure, rather than another." This, which our Author and his Followers insist much on, is taken from Pyrrho, and his Disciples — Κατὰ τὸν αὐτὸν τρόπον τὰ ἀληθινὰ εἶναι μεγάλα, μικρὰ φαίνεται· τὰ τετραγώνια, ὀρθογώνια· τὰ ὀρθὰ, ἑξέχως ἔχοντα; τὰ ὀρθὰ, κυκλωσμένα. — It is against the first Elements of Geometry, that any object, this Book for instance, should subtend the same angle by rays proceeding from it to the eye, at all the various distances at which it may be placed. Thus upon the supposition that objects really exist, there is a demonstrable necessity that they should appear of different magnitudes and figures, placed at different distances from the beholder. Hence it seems very unskillful to make such an appearance an objection against the real existence of extended objects, which must necessarily obtain, supposing them to exist. If such an objection prove any thing, it proves extended objects impossible, because another impossibility cannot become fact; viz. That the same line should always subtend the same angle, by lines drawn from it to any point.

It is said, "I have pretended to ridicule this scheme, by endeavouring to put some propositions, according to it, in ridiculous language." This I directly deny. The language into which I have put these propositions, is very proper according to this scheme. This was designed as an argument against

against the scheme, not as ridicule; and I still think it is one. When it is said in the objection, "That an *object* (this *Book*, v. g.) placed within a foot of the eye, appears of one magnitude; and removed to the distance of ten feet from it, appears to be of another; and at the distance of a hundred yards, still of another, &c." I assert that this is no language for this scheme; or it is captious and sophistical language. It should be "The *idea* of a *Book*, placed within the *idea* of a foot of the *idea* of the eye, &c." To express this in common language, and yet suppose the expression proper, is first to suppose the *Book* placed, and *really existing*; and then to infer from this supposition *that it is only an idea*. To apply common language to a quite contrary sense, and then to suppose this *arbitrary application* an argument to overturn common sense, or to contend for the *propriety* of such application, is as inconsistent as any thing in the scheme. It is plain *figure, distance, magnitude, motion*, are no language on this hypothesis. These are supposed real in the *language*, and it is thence concluded there are no such things. This is an open fallacy. It is certain, arguments for a *true hypothesis*, may be expressed in words agreeable to that hypothesis; and not in such a language as *contradicts* and *supposes it false*. And since it is impossible for any man living, to do this on our *Author's* principles; this itself is an invincible argument against them. Common language is adapted to the *objects* of our ideas, and *these principles* to the *ideas* of objects: this must occasion a constant opposition between any language and these principles, and shews that they contradict common language, as much as common sense.

## S E C T. VIII.

*That matter is not eternal and uncaused, nor the eternal effect of an eternal cause.*

**I**T hath been shewn in the first and second sections above, what kind of a substance matter is: it appears to be a *sluggish, inactive, lump*; not only not endued, but utterly incapable of being endued with any *active power*. The nature of it consists in being *solidly extended*, or so extended as to *resist*. Hence *resistance* is fundamental in its nature: and hence again arises an impossibility of its *effecting* what it resists, viz. any change of its present state. If we should conceive it once placed in any part of the immensity of space, (though we could not even conceive it placed *at first* in that part rather than another, without some *external cause* to determine this particular *location*;) if, I say, we should conceive it once thus placed, we must after that conceive it to remain *in that place* to all eternity; to continue in *that shape or figure*, and with the same *relative situation of its parts*; without any possibility of change or variation; unless we allow of an *immaterial Cause*, which could effect a change in such a dead



a dead substance. And in consequence of this it appeared that an *universal, indefinient, various impulse* from an immaterial Cause, was necessary to be impressed upon it, to effect all those changes it undergoes, and to produce all those regular and beautiful *vicissitudes* which we behold in nature; and that the incessant and universal influence of *this Cause* is that which constantly *supports* the material world. It was moreover shewn that this *inert substance* cannot *resist* but in proportion to its *quantity*. And since the *least parts* make the greatest resistance, that they may not be put out of their relative situation among themselves; *this itself* appeared to be the *power* of this immaterial Cause, indefinitely impressed upon, and exerted in every possible part of matter. And since without this, *these least parts* could not *cohere* at all, or make a solid, resisting substance (a); it appears that the power of this Cause thus incessantly put forth through all its possible parts, is that which constitutes the *solidity* and *resistance* of matter. And hence again it follows that, as the power of this Cause constantly exerted, constitutes the nature and solidity of matter *now*; so it could not have been a solid resisting substance *at first*, or for any the *least time*, without the power of this Cause thus exerted. And thus the great question concerning the *rise* and *origine* of matter, seems to be naturally and easily determined, from what has been already shewn in these two sections. For from this it appears to be a *thing caused*, at whatever time it may have been brought into existence: and nothing can be more against reason than to suppose, that such a *dead, inactive substance* (a substance, which wants the power of a *foreign Cause* to be indefinitely put forth upon it, that it may be, what it is) should nevertheless be a thing uncaused and independent. Without this *foreign influence* to effect cohesion and solidity in it, we could not conceive it all to be a substance. Let us go as far as we can in the *sub-division* of parts, as long as we allow these parts to be *solid* and *extended*, we must allow them to be solid and extended by this external power exerted: and if they are not solid and extended parts, they cannot be *parts* of solid and extended substance.

This carries the point beyond the reach of objection; for to say, There might have been some *incomplete subject*, or *substratum*, eternal and self-existent, which the power of *this Cause* (by being exerted in it) constituted into a *solid, resisting substance*, would be to speak not only unin-

(a) Let what hath been said concerning the *cohesion* of matter, from N<sup>o</sup> 7. to N<sup>o</sup> 12. Sect. 2. be here remembered.

telligibly but absurdly. What could this *incomplete, self-existent* thing be? It could not be matter, or solid and resisting substance; but some unsubstantial *phantom* of matter. And I demand a reason from the *Patrons* of eternal and uncaused matter, why an incomplete unsubstantial *phantom* of matter should be eternal and uncaused; since the substance in its complete nature could only be a dependent effect (*b*)? Can a *half-finished, imperfect thing* have a better claim to *self-existence*, than that whose nature is *full and complete*? Here the latter of these hath been manifestly proved to be an effect: after which it would be absurd to the last degree, to pretend the former may be independent and eternal. This would be contending, without knowing what was contended for: and it is so far from being true, that we cannot conceive *the creation of matter out of nothing* possible, as is pretended, that it is even impossible to conceive it *self-existent* and *uncreated* (*c*). It must have been created (and out of nothing too; not

(*b*) All this would be the counter-part to Aristotle's figment of *substantial forms*. The *phantom* of substance, (which is the same as *unsubstantial* substance) and *substantial forms*, seem to tally in making up something like real substance between them, if we could conceive either of them to subsist without the other; but they must either be both *substances*, or both *shadows*. And in the terms to which the controversy is here reduced, the Deity contributed the one part in finishing the substance, [the solid and resisting nature of matter] which seems the only substantial part: and the other [the unsubstantial phantom] is as eternal and necessary as he himself! I should think men should be ashamed to stand by this. If we call to mind Aristotle's definition of his *materia prima*, we shall find it exactly to agree to that which must be here supposed *necessary* and *self-existent*. It is, *Nec quid, nec quale, nec quantum, nec quidquam eorum quibus determinatur ens*. This is *empty sound*; but it is fit enough to describe an *empty phantom*, of which no man ever had, nor ever will have any notion. And yet this is that which the *Stagirite* makes eternal and necessary; which, if it had not been self-existent, the no power of any Being could ever have supplied!

(*c*) "You tell us (says Dr. Clarke, in his Dispute with M. C. p. 245.) if we have not an idea of the creation of matter out of nothing, we must inevitably conclude matter a *self-existent Being*. I answer, by the same argument, it follows on the contrary, that if we have not an idea of the self-existence of matter, [that is, *that every distinct particle of matter in the Universe, is a necessary, independent, self-existent Being*,] we must inevitably conclude matter to be a *created Being*. And by a better argument, it follows, if we have an idea of the possibility of the *non-existence* of matter; that is, if we have an idea that Space can (without a contradiction) exist without matter in it; we must inevitably conclude matter not to be necessarily existing, but a *created Being*." To this I beg leave to add, that the unneccessariness both of matter itself, and the idea of it, can no way better appear, than if we compare these two, *Space* and *matter*, together. The one hath all the genuine marks of necessity; it forces itself upon us; it will neither be increased nor lessened in our thoughts; and we cannot suppose it out of nature, but by a contradiction. It is quite otherwise with

*matter*;

not certainly out of a half-finished phantom of a *substratum*) when the power of this immaterial Cause was first exerted, to make it a solid resisting substance.

II. This might suffice; but this old controversy is still varied into new and different forms; the idea of eternal and uncaused matter is pretended to be the only consistent idea we can have of it; and abundance of other difficulties are endeavoured to be raised. Wherefore we shall proceed to consider the idea which all men naturally have of matter, and to shew from *that*, and from many *circumstances* in its existence, which must be determined by an *external Cause*, before we can conceive it to exist at all, that it must have had a *commencement* some time or other. It is to be observed

matter; we may suppose *more or less* of it to exist, or even that once *none at all* existed, without any violence offered to our ideas. When we dispute Space out of existence, we endeavour to obscure one of the clearest ideas we have of necessary existence; but after the heat of argument is over, I am apt to think every man finds in his own breast that this is impossible to be effected.

With respect to the *impossibility of creating matter*, a certain great Author seems very positive. I shall here give his argument, and endeavour to answer it. He says, speaking to the other *Person* in the Dialogue.—“In the first place, give me leave to wonder that, instead of the “many arguments commonly brought for the proof of a *Deity*, you make use only of one “single one to build one. I expected to have heard from you, in customary form, of a *first Cause*, a *first Being*, and a *beginning of motion*: how clear the idea was of immaterial substance; and how plainly it appeared, that some time or other matter must have been created. “But as to all this you are silent.” [Thus our Author, I think, endeavours to get quit of this kind of reasoning, with a pretended *contempt*, instead of argument.] “As for what is “said of a *material unthinking Substance* being never able to have produced an *immaterial thinking one*; I readily grant it: but on the condition that this great maxim of *nothing being ever made from nothing*, may hold as well on my side as my *Adversary's*; and then, I “suppose, that *whilst the world endures*, he will be at a loss how to assign a beginning to “matter, or how to suggest the possibility of annihilating it. The *spiritual men* may, as long “as they please, represent to us, in the most eloquent manner, that matter considered in a “thousand different shapes, joined and disjoined, varied and modified to eternity, can never “of itself, afford one single thought, never occasion or give rise to any thing like sense and “knowledge. Their argument will hold good against a *Democritus*, an *Epicurus*, or any of the “elder or latter *Atomists*. But it will be turned on them by an *examining Academicist*; and when “the two Substances are fairly set asunder, and considered apart, as different kinds; ’twill be as “strong sense, and as good argument, to say as well of the immaterial kind, That do with it “as you please, modify it a thousand ways, purify it, exalt it, sublime it, torture it ever so “much, or rack it, as they say, with thinking; you will never be able to force the contrary “Substance out of it. The poor dregs of sorry matter can no more be made out of the simple, “pure substance of immaterial thought, than the high Spirits of thought or reason, can be extracted from the gross Substance of heavy matter. So let the *Dogmatists* make of this argument “what they can.”



that the two general hypotheses, on which men have chosen to build the eternity of matter, are, *first*, That it is eternal and uncaused; and *secondly*, That it is the eternal effect of an eternal cause. Of these in order. And here I must take notice, that men have added to the natural difficulty of this subject, by starting all manner of *subtile* and *wire-drawn* objections to hinder any conclusion from being established: and then they complain of the *subtlety* and *abstractedness* of the arguments; as if that were not occasioned by themselves. Every objection must be answered according to the nature of the argument it contains; and for men to have recourse to subtilties in raising difficulties, and then complain that they

This is a bullying Defiance, and the argument is treated in a very metaphorical manner. But passing by other things, the *Academist* grants here, both *material* and *immaterial Substance* to exist, or a Substance which is solid and resisting, and a Substance thinking and intelligent, as distinguished, and (it seems) equally eternal. And he will be forced to own that if there be an intelligent Being any way perfect, there must be an *infinitely perfect intelligent Being*: for whatever Being is necessary, cannot be *necessarily* limited and imperfect. And if there is an infinitely perfect Being, he must be infinitely powerful and knowing, or what we call *God*. Now the argument comes to this, I presume, *That, if matter could not create God, or if this on the one hand is certain, it is no less certain on the other, That God could not create matter*: Or, *if a powerless, dead lump could not create an infinitely powerful, living Being; no more could an infinitely powerful living Being create a powerless dead substance*. The examining *Academist* may shew the *parity of reason* here, on which his argument is founded; or examine if there be any disparity; for to others who cannot examine so well, the disparity seems infinite. The condition which he demands may be allowed, as well on his side, as his Adversary's, *That nothing can ever be made out of nothing*, supposes that an infinitely powerful Being is as unable to create a new Substance, as dead matter is unable to perform the like effect. This is too large a *postulate* to be granted so easily; but of this more afterwards. Besides, it seems wrong to contend that a *dead substance* must as necessarily have been without origin, as a Being of infinite perfections; merely because such a Being had not perfection enough to produce this sluggish inert substance. This looks like denying a Being of infinite perfections. In his way of *extracting, exalting, subliming*, it would appear the *Author* imagined that matter was to be made out of *immaterial* or *thinking Substance*, as a pre-existing subject; or that *Spirit* was the *materials* from which the *sorry dregs* of matter was to be drawn by a sort of chymical process. A little more argument and less metaphor would have been more convincing. If any thing existed necessarily, it was the very *sorry dregs* of matter; for every thing *solid* and *substantial* in it appears to have been produced in time. Lastly, All this flourish is no more than what *Pyrrho* and the *Scepticks* affirmed long ago. They said, "An incorporeal substance" could not produce body." The reason they gave was, "because no incorporeal thing produces body." And again, "Body doth not produce any thing incorporeal, because the thing produced must be made out of a passive subject, or pre-existing materials." — Ἀσώματος δὲ σώματος ἐκ εἶναι αἰτίου· ἐπεὶ εἴδεν ἄσώματος ποιεῖ σῶμα· σῶμα δὲ ἄσώματος ἐκ εἶναι αἰτίου· ὅτι τὸ γινόμενον, τῆς πασχέσης ὕλης ὀφείλει εἶναι· *Diog. Laert. Pyrrho*. Hence it would appear, the examining *Academist* goes no farther, than the doubting *Sceptick*.

should

should be taken off by minutely examining these subtilties, is a strange kind of procedure. And to those who would desire to have the point fairly determined, without troubling themselves with abstract arguments on either side, the reasoning in the last paragraph, it is presumed, will give satisfaction; and indeed more is unnecessary to any fair Enquirer.

III. Now as to the *idea* of matter, a man, I think, must commit great violence on his mind, who raises it into the idea of a *necessarily existing Being*. Not to mention that this is a false idea of it, as appears from what has been said; our common observations concerning it, seem to suggest to us, that it is only a *thing contingent* and *passive*. We can discover no perfection in it; it seems to be altogether subject to the power of *active Beings*; it is tossed about from place to place; the figure of it is changed all manner of ways; we fashion it as we please; and all the trouble it gives us, is only from its *deadness* and *inactivity*, things the farthest possible from heightening our ideas of any substance. These are the first and most general notions of mankind concerning matter: and if *speculative men* begin to consider it in a more accurate and philosophical way, they will discover nothing that can heighten their conceptions. Allowing we could not have an *idea* of the *creation of matter*; (though something very like the certainty of this *creation* hath been proved in N<sup>o</sup> 1.) yet if we offer to form a contrary idea of it, viz. *that it is eternal and uncaused*, so many absurdities arise, as shew we offer violence to our reason. The consequences of this supposition are, That matter must be *self-sufficient* in its own nature, or such a substance as *owes nothing* to any other *Being*; that it is contradictory to suppose *one atom* of matter *less* or *more* in the Universe; or to suppose it not to have existed in *all time past*, or not to exist in *all time to come*. But every particular of these is false, and proves this to be a *false idea*. It hath been shewn that matter *owes* its very *nature* and *solid extension* to an *immaterial Cause*; and the quantity of it is entirely arbitrary, which is a plain consequence of the former. Every atom of matter is a *distinct substance*; and nothing can be more *unsupported* than supposing such an *infinite number* of *necessary, self-existent, distinct Beings*. And if *any atom* in the whole number is not rigidly necessary, so that it would imply a contradiction for it not to exist; *no one atom* in the whole mass is necessary, and the supposition itself falls to the ground.

That which forces us to own the existence of any thing necessary is, because it would imply a contradiction to suppose the contrary: and if

every

*every atom of matter* existed eternally, and without a cause, it would be as contradictory for it at any time not to have existed, as for *the same thing to be, and not to be at once*. In this case, the contradiction must be as far extended backward, as that supposition on which it is founded, viz. to eternity; for the atom is supposed eternal, and uncaused: and *this axiom*, which is otherwise conditional, becomes here unlimited; the condition being removed by supposition. Hence it must have been eternally a contradiction for such an atom not to have existed: but those who have maintained the eternity of matter, have never been able to prove it; so far is *the non-existence of an atom* from implying a contradiction. Whence, as I said, this supposition cannot be true, nor the idea of *uncaused matter* a just idea.

IV. To make this reasoning the more easily understood, I shall take notice of a difficulty which I am told will lie against it. It is said that though from a thing's existing necessarily we can infer that it hath existed eternally, for there the consequence is plain; yet it is not so clear conversely, that from a thing's having existed eternally we can infer that it exists necessarily, so as to imply a contradiction in being supposed not to exist; and that the greatest difficulty in this argument is to make out this connexion. But I answer, If matter had no cause of existence, it must be *self-existent*, or existence must belong to its nature; there is no medium: and if it be self-existent, it must exist necessarily; a thing whose existence is of itself, and belonging to its nature, cannot be indifferent to exist or not exist: and if it exists necessarily, it must also be independent on any thing else for its existence. So when we suppose matter uncaused, we do as much as if we supposed it *self-existent, necessarily existing, and independent* on any thing else for its existence: and whatever contradiction there is in supposing a necessarily existing Being not to exist, the very same there will be in supposing an eternal and uncaused Being not to exist, or uncaused matter not to exist: and the contradiction will appear thus. If any one should think there is only one necessary Being, and at the same time with the Atheist should add, that matter is this Being, (since it is a plain contradiction that once nothing at all might have existed) if he supposes matter at any time not to have existed, this contradiction comes full home to him. [It would have been absurd in *Lucretius*, who said, *Nothing existed but matter*, to have said, *Once matter itself might not have existed*.] Or if he should say there are two necessary Beings, of which



matter is *one*, and that some time or other it might not have existed, he not only absurdly makes the half of necessary Being contingent; but since they are equally necessary, if one might have not existed, the other also might have not existed; and thus still *nothing at all might have once existed*: and he will always be reduced to this, though he should suppose a hundred such Beings (*d*). Let it be remember'd that *uncaused, self-existent, necessarily existing, and independent*, are all equivalent expressions; as appears from what has been said in this paragraph.

V. We

(*d*) The argument shewing that matter doth not exist necessarily is of great consequence; since it follows from it, that an immaterial Being must have existed necessarily; for it would be absurd to say either that *nothing exists necessarily*, or that what exists necessarily is neither matter, nor *not matter*. Therefore I shall here remark another difficulty or two started against the reasoning in these two paragraphs. Because I have said, if matter existed eternally and without a cause, it is contradictory to suppose it not to have existed in all time past, or not to exist in all time to come: It hath been observed "That some may look on it in the natures of *the things themselves*, as far as known to us, equally possible for them to have *begun to be*, or *never begun to be* [as having always existed to wit]; or even after they have *been for ever, or for any time*, to be annihilated by *some cause* endued with the requisite powers." But let it be considered how absurd it would be to affirm either of these contraries, *matter began to be*, or had a cause; *matter never began to be*, or had no cause, equally possible; of these the one must be unalterably true, and the other false; and if we know any thing, we must know that possibility cannot be equally competent to two such propositions more than to a proposition of *Euclid*, and the negation of it. If matter be a *self-existent thing*, it was impossible for that very reason that ever it could have begun to be; and *vice versa*, if matter *began to be*, it was impossible it could have been self-existent. Though matter may be *indifferent to existence or non-existence*, (where there is no necessity on either side); yet it could never be *indifferent to necessary existence or arbitrary existence*; that would be to make *necessity itself* consist in *indifference*. Whence it appears, that to entertain such a notion of matter, as is mentioned in the objection, would be extremely absurd; and if it be a common way of thinking, it ought to be rectified. And farther, which soever of these two propositions, *Matter existed by a cause*, *Matter existed by no cause*, be the true one; yet by the rules of argument, he who supposes the one to be true must at the same time suppose the other to be false and impossible; which shews the argument above to proceed rightly. The last part of the difficulty shall be considered hereafter.

The other difficulty is of much greater consequence. I say, That which forces us to own the existence of any thing necessary is, because it implies a contradiction to suppose the contrary. On this it is observed, "That if the *Cartesian arguments* from the idea of a "God are inconclusive, as they are generally now allowed to be, it will be hard to say that "any Being is to us necessarily existent in this sense; that when we infer from the existence of other things an eternal uncaused Being, it doth not come up to the sense here "meant, else why have we recourse to a train of reasoning, and do not rather see the contradiction immediately? Can the mere speculation of ideas prove the existence of any "thing? The existence of *such a Being* must be an *axiom*, and need no proof, since its non-

"existence

V. We may next observe concerning matter that *if it existed necessarily*, it either existed necessarily in *one solid mass*, or in *separate and incoherent parts*. It could not exist necessarily both these ways, since the one excludes the other: therefore it existed necessarily in one of them only. But it could not exist necessarily either of these ways, since the other was equally possible,

“existence must imply an absurdity; so that in this sense nothing seems necessarily existing to us, not even *the supreme Being*, because it is from *his effects* we discover his existence, and not from any *sufficient reason* which discovers his existence *a priori*. That we know that an eternal uncaused Being exists, a proof of this, *a posteriori*, is allowed; but the sufficient reason, *a priori*, was never given; and till it can be known, how come we to be so bold in speaking of the manner of his existence?” To all this I answer, first, that *I do think* there is a strong necessity for the existence of Being, in general, nay, a necessity for infinite existence; because otherwise an infinite and eternal nothing would be necessary. It seems to me the greatest absurdity to make all existence *barely possible*, or contingent; for even that supposes some Being necessary, of which it must be a *possible effect*. And if any existence be allowed necessary, it must be *infinite existence*; for where-ever necessary existence ends, a necessary nothing *will take place*, either *finite nothing*, or *infinite*. But nothing can have no properties, otherwise it would be *something*. Infinite and eternal are necessary properties of *something*, and therefore of *infinite and eternal Being*. And this I would beg leave to call a *demonstration* of infinite and eternal existence, or Being, merely from *the speculation of our own ideas*, abstracting from effects; which if we should give up, we cannot, I think, pretend to be certain about any thing. Or let it be considered thus, that there is an absolute, unconditionate necessity either of *existence* or *non-existence*; and this will make *one* of the two universal and absolute. There cannot be a necessity for both; there would be then two absolute necessities *opposing each other*, whereby the necessity on both sides would be suspended or destroyed: nor can both be said to be unnecessary, or indifferent; that would be a *necessity of universal indifference*, or of want of necessity, whereby opposite affections of Being, [necessity and indifference] would be confounded, or made the same: and such notions applied to Being itself would make strange work in philosophy. Absolute necessity is every where alike and uniform, without difference or variety, which indeed shews *the unity* of the necessary Being, as Dr. Clarke observes. Now I cannot help observing, that this seems very different from the *Cartesian method*. They first of all form, if not arbitrarily, at least voluntarily, the idea of an infinitely perfect Being, and argue for the necessity of his existence from that *formed idea*: but beginning in the manner here mentioned, the complex idea of an infinitely perfect Being forces itself upon us, property by property; and the idea itself becomes necessary. Let me farther observe that it seems improper to apply here Mr. Leibnitz's principle of a *sufficient reason*. This necessity appears to me more than a sufficient reason, as it is necessity; for necessity is more than *bare sufficiency*. And this will hold also applied to the manner of necessary existence, which will itself, I hope, appear necessary immediately. And thus far here as to the proof of necessary Being, *a priori*, which I shall have occasion to resume in establishing the unity of the Deity.

possible, or implied no contradiction: that is, it existed necessarily *one of these ways*, and yet *neither of them*, which is a repugnancy. This argument holds with respect to the *location* of matter in some particular part of space, since the quantity of it is not immense; with respect to the *figure* of the mass, or of its separate parts; their *distance*, or *situation*; its *state* of rest or motion, and the *direction* or *velocity* of the motion, if matter be supposed to move. In short, *indifference as to the manner of existence* (that is, where more ways of existence are all equally possible) is *inconsistent with necessity of existence*: for *all the ways* being, by suppo-

As to what is said, that though a proof *à posteriori*, is allowed, yet we can determine nothing about the manner of his existence till the *sufficient reason* is known; I beg leave to observe, that supposing no proof *à priori*, could be adduced, yet if it be shewn by arguments *à posteriori*, that this Being hath no *cause of existence* from without, it follows that he must have a *necessity of it* from within, or in his nature, just as effectually as it could have followed from a proof *à priori*: and this determines the manner of his existence as to necessity, that is the necessity of it; and the manner of it in any other respect is not yet enquired into; nor are we guilty of any unwarrantable boldness, I think, in speaking thus much of the manner of his existence upon such grounds. I leave it here to the judicious to consider, whether in this case there be not a needless difference made of late, in point of conclusiveness, between a proof *à priori* and *à posteriori*. What signifies it how we come to the knowledge of any truth, provided we come to the *certain knowledge* of it? Whether by the *synthetick* or *analytick* method; by beginning at the head and coming down to the foot, or by beginning at the foot and mounting to the head? In other parts of knowledge the *analytick* method is much insisted on, which is all by arguments *à posteriori*; and this brings no disadvantage to that particular science, or truth. Mathematicians in Algebra begin at the end, (if I may so speak) and argue backward: and having found out the truth this way, they make it a standing theorem, to argue *à priori* from, for ever after. Why should it be otherwise here? When by arguing *from effects* we find out that there must be an *eternal uncaused Being*, why may we not make this truth a *standing theorem*, and deduce all the same consequences from it, as if we had seen it directly without investigation. If we discover a necessarily existing Being *à posteriori*, we have then a sufficient reason *à posteriori*, for believing his existence; and if we have a sufficient reason *à posteriori*, why demand another sufficient reason *à priori*? — But in truth, we have a sufficient reason *à priori*, for we discover a necessity of his existence, which is much the stronger. A *sufficient reason* is only applicable in the nature of things, I conceive, when we are enquiring about *effects*; but to require a sufficient reason of uneffected existence (or of the manner of it, which must be also uneffected, and therefore necessary) seems to me very absurd; it is the same as to require a sufficient cause able to effect these *uncaused or necessary things*. Lastly, I would observe that the denying a necessary Being may imply a contradiction, and yet that contradiction want to be brought out by a train of reasoning. The denying every true proposition as well as *axioms*, implies a contradiction; and yet these want to be proved. And those propositions may be axioms to the *quick-sighted*, which to others will require a demonstration.



sition, equally possible, the necessity of *any one* of them is prevented; and therefore the necessity of any manner of existence, or the necessity of existence in general. In this case we are forced to suppose an *external cause* determining one particular manner of existence out of more possible ones. And this is applicable to the condition of matter particularly: for being a *dead inactive* substance, as has been made appear, and indifferent to the several ways of its existing, and not being able to determine this indifference itself, an *external cause* to determine the manner of its existence is absolutely necessary: and since it could not exist at all *but in some manner*, an *external cause* was absolutely necessary to make it exist *at first*, or to give it *any manner of existence*.

VI. Here again it hath been urged, "That *indifference* as to the manner of existence may not be inconsistent with a *Being's existing necessarily* in some manner; if it be allow'd that a Being which owes its existence to no other Being, may be affected by other Beings as to the manner of its existence, which does not appear so absurd as to be easily confuted." Whether by these last words it be meant that *God Almighty* may be affected by his *creatures* as to the manner of his existence, or that *matter* which owes its existence *to nothing else* (which by the way would be a begging the question) is so affected as to have the manner of its existence changed, I know not; only it had been proper to have said something in proof of this *supposition*, or to have assigned *the instance*, since it is made the ground of an objection. However, the absurdity of it may appear in general thus. If a *necessary Being* might have the manner of its existence changed by any *other Being*, it must depend on that other Being for the manner of its existence at least: and if it depended on another Being for the manner of its existence, it must depend on that Being for *existence itself*; since it cannot exist *but in some manner*. Existence taken separately from all manner of existence is an impossibility, the negation of existence. But it hath been shewn (N<sup>o</sup> 4.) that a self-existent Being must be also independent for its existence, and therefore for the manner of its existence. Nay, so independent is the manner of necessary existence, that it is even absurd to suppose it to depend on *the necessary Being itself*, or to be determined by it; for it ought to exist before it could determine the manner of its own existence, and therefore to exist without determining the manner of its existence; or to exist in a necessary and independent manner. Or thus. It ought to exist before it could determine

the manner of its own existence, and yet to determine the manner of its existence before it could exist, since the manner of its existence is supposed dependent on, and therefore determined by itself; which is repugnant. In a word, if the manner of necessary existence were *dependent*, it would be *effected*: and as we suppose it dependent on another Being, or the necessary Being itself, it would be effected by one or other of these respectively. And, since existence cannot be without a manner, the supposition ends in this palpable contradiction, That an *uncaused* Being is *caused* by another Being, or by itself.

VII. I am solicitous to remove the prejudices of men in this material point, and therefore observe that the *manner* of necessary existence is otherwise proved to be itself *necessary*, thus. If the manners of necessary existence are more than one, then they are either *all unnecessary*, or contingent only; or they are *all necessary*; or, lastly, *one of them* only is necessary. *First*, if they are all contingent or unnecessary, since the Being could not exist then but in one of these unnecessary manners, it could not exist necessarily at all. For, as I have said, existence, taken separately from all manners of existence, is an impossibility; so that it is contradictory to say existence is of a different nature from all manners of existence. Conceive, if it be possible, a Being stript of all manners of existence; and then enquire about the nature of its existence if you can. It must be then annihilated, having *no manner* of existence, and therefore an existence of *no nature*. Existence without a manner is but an abstract idea: and hence it is that from the manner of it only it receives the denomination of *necessary*, *contingent*; *happy*, *miserable*; &c. *Secondly*, if the manners are all said to be necessary, (passing by the contradiction in such a supposition) when the Being exists in *any one* of them, *all the rest* must be *unnecessary* for that time at least, nay *impossible*; since a Being cannot exist in two different manners at once. Thus the impossibility would go round through them all, and this supposition would make them all as unnecessary as the former: the necessity is but *nominal*. Now since there could be no *necessary Being* in either of these two suppositions, and yet it is certain that some Being exists necessarily, it follows that the manner of its existence is *one*, *necessary*, and *immutable*. And this shews, as I concluded before, (N<sup>o</sup> 5.) that matter is not an uncaused or necessarily existent thing, whose manners of existence are so *various* and *different*. This principle therefore, *That indifference as to the manner of existence, is inconsistent with*

*necessity of existence*, and supposes another Being to determine it, and of consequence to give existence to that thing at first, stands firm ; and ought, I think, to be received as an undoubted truth in philosophy. Let it also from hence be remembered, that existence cannot be of a different nature from the manner of it, or from the present manner of it ; for it hath no other thing to give it a nature, or denomination, or to constitute a difference in it, being otherwise only a general or abstract idea. But to go on with the farther consideration of matter.

VIII. If it was eternal and uncaused, it received nothing from any other Being, and its nature and properties are self-existent. Now the nature of matter, without which it could not be what it is, and without which it would be nothing to us, is, that it is a substance *solidly extended, figured, moveable, divisible*. But a substance *extended and figured* is a plain effect, and infers a *cause* which thus *extended and figured* it ; when we say a thing is *fashioned, made, wrought*, we intimate a cause which wrought and fashioned it after that manner. *Extended, figured, fashioned, wrought*, are all alike expressions of the passive form (e). How oddly would it sound to say a *self-existent house*, an *uncaused pyramid or statue* ? The absurdity is not

(e) It hath been observed here, that this is only a *grammatical argument*. But let it be so ; it shews us that even the propriety of expression leads us into a just way of thinking. Let a man say, whether it is not literally true of matter, as it is a solidly extended substance, that it is *figured, fashioned, wrought* ; and if so, whether it can be other than an effect, either in *grammar or philosophy* ? It would be hard to suppose these two inconsistent. Since we have not another way of communicating our thoughts but by language, if there were no propriety in the expression, there could be no justness in the thought when communicated. And since it has been shewn that the *constant action* of an immaterial Being constitutes the very solid extension of matter, this justifies the propriety of the expression ; for it could never have been thus solidly extended, or figured at first, without the action of *this Being* ; i. e. it could not have been without a cause.

With respect to this it hath been farther urged, that " If my expression [matter is figured, extended, placed,] be turned thus, [matter has figure, extension, place,] the argument vanishes with the form of expressing it." But I ask, Whether the Objector's manner of expression makes *figure, extension, place*, any powers or activities belonging to matter ? If they are only *marks of passivity* in it, we are just where we were before ; they must still appear *effects*, however disguised by the manner of expression. If it be certain that matter could not exist without *figure, or extension, or place*, and yet could not give these to itself ; what are we to conclude ? That such *passive affections* are *necessary and self-existent* ? Matter could not have solid extension, unless an immaterial power were exerted upon it, (see N<sup>o</sup> 1.) it could not therefore have figure or place, as being *eternal and uncaused*. If I should say, the table I



not less, though it be less attended to, when we suppose an *uncaused* globular particle of matter, a *self-existent* cubical atom. *Figuration* is one of those

write upon is a Substance *figured*, and Another contend that it is only a Substance having *figure*; would his changing the expression shew that the *figure* of the table was *necessary* and *self-existent*? The cases seem to be much alike. One might indeed chuse to say, Matter is a substance having inactivity, instead of Matter is an inactive Substance; but the inactivity of matter would not *vanish* with the form of Speech. I say, Matter is a *solid, figured, extended* Substance; it should be shewn then that this expression is improper, or ambiguous; and that it hath led me to make a wrong conclusion; otherwise, to find fault with it, is what may be called, *Nodum in scirpo querere*; and to turn it to a form less common, and less just, is endeavouring to perplex a plain case.

It is still farther urged on this Head, "That the *location* of matter, or its being in *one place* rather than another, cannot prove that it doth not exist necessarily, as I pretend; because necessary existence has relation only to *time*, but not to *place*; or it implies that the thing must have existed through all points of time, and for ever, but not in all places and every where." This is the common notion concerning necessary existence; but if we consider what has been said in the two last paragraphs, concerning the manner of necessary existence, which must be itself necessary, this notion will appear to be only a common prejudice. I shall here apply the argument to matter in particular, and endeavour to shew that necessity of existence hath as much a relation to place as to time.

If we say matter exists necessarily *in general*, but not with respect to any *particular place*; since *place* is as necessary an affection of its existence as *extension* itself (for *extension* cannot be without *place*;) it is as if we should say, the extension of matter in general is *necessary*, but in particular it is only *contingent* or *casual*; or thus, the existence of matter is necessary, but a *necessary affection* of that necessary existence is only *casual*. Thus the general and particular existence of matter should have *contrary natures*; or the *existence* of matter, and a *necessary affection* of that existence, should have contrary natures. This *affirms* and *denies* the necessary existence of matter at once. And there is no avoiding this contradiction, for the objection supposes matter to have *two different kinds* of existence; it supposes the existence of matter in general to be *undetermined* by any thing else, as it exists necessarily; but matter must exist *particularly*, and is not what Logicians call an *Universale à parte rei*; and therefore its *particular existence* must be determined. Now since matter can only exist particularly, and hath no general existence, it cannot exist without being determined by an external cause as to place. And since its existence hath no *necessary relation* to place, it is *not necessary*. Here the Objector supposes matter once *determined* as to place, (or once determined in its particular existence) no matter how; and having supposed this, he contends no determination is necessary, and that the argument from *determining its particular location* hath no force to shew that it could not be *self-existent*.

The argument which Writers make use of to shew that matter doth not exist necessarily, is this: If matter exists not necessarily in *this place*, it doth not exist necessarily in *another place*; and therefore it exists necessarily in *no place*. The strength of this argument would be better perceived perhaps, if it were drawn out at greater length, which may be done in the following manner.

those things which unavoidably imply causation. The conception of matter is not that it is a substance *figuring* and *extending*; but a substance *actually figured*, and *impenetrably extended* (f): and that a substance should be *figured* with infinite diversity, and *extended* arbitrarily, and yet by nothing,

If matter exists necessarily at all, it either exists necessarily *in no place*; or *in all places*; or lastly, *in any place* it is supposed to be in. These are all the suppositions that can be made, and yet they are all contradictory. As to the *first*, if matter be said to exist necessarily *in no place*, it is denied to exist necessarily at all. The property which its existence hath in no place, is no property of its existence. The *second*, that matter exists necessarily *in all places*, is a direct contradiction; for since matter (any *particle* of it, or the *whole mass*) can exist but *in one determined place* at once, in all other places it exists neither necessarily, nor unnecessarily. Where it exists not, its existence hath still no properties. And the *third* supposition, *viz.* That matter exists necessarily in whatever place it is supposed to be in, is repugnant in the very terms. It cannot be said to be in *any place*, rather than *another*, but by *supposition*, and at the same time it is said to be *necessarily* there. What I observed just before is very evident here; the determination is once supposed, or matter is once supposed in a certain determined place; and it is hence inferred that no external determination is necessary, or that matter *exists necessarily* there. If this be not so, let the *Objector* assign another reason, why it should exist in any particular and determined place, besides his own *supposition*. Let the place it is said to be in, be called A; it exists therefore in the place A at the time *u*; now it was equally possible that it might have existed in the place B at the time *u*; or there is no other necessity for its existing in this place, but an arbitrary supposition; and another Man might have supposed with equal reason, that it existed in the place B, C, or D, at the time *u*. But to suppose it existing in the place A at the time *u*, and thence to infer that it exists necessarily *there* at that time, is as much as to say, *My supposing it to exist there makes it necessarily exist there*. Which shews, as has been said, that necessity of existence has as much relation to place as to time. And therefore since matter is indifferent as to existing in any place, it requires an external, or *immaterial Cause* to determine its place, or *location*; and since it could not exist at all, but in some place; it requires an *immaterial Cause* to determine its existence in some place at first.

And the same kind of argument will be applicable, to shew its *indifference* as to being of this or another *figure*; having the parts of its mass *contiguous*, or *separated*; and if separated, as to having them at this or another *distance*. And the same reasoning will also shew its *indifference* as to being in a state of *rest* or *motion*, as to having this or another *direction*, this or another degree of velocity; in all which an infinite variety is possible. And in spite of all evasions that can be thought on, this argument shews that matter is not a *self-existent* or *uncaused substance*.

(f) Here it hath been asked, "If we may not say that Space is extended as well as body?" I answer, that it cannot be said to be extended in the same sense that body or matter is. The idea we have of Space is of extension in the abstract, not of a concrete extended substance. And this takes off the force of the objection from a supposed parity. Upon this account Mr. Locke chuses to call it *expansion*, (Book 2. chap. 15. Sect. 1.) and we conceive it as a thing incapable of *contraction*, *dilatation*, *motion*, *divisibility*, or *separation of parts*. (See Mr. Locke, Book 2. chap. 13.

is the same absurdity as that *there may be an effect without a cause*. This argument hath not been hitherto fully considered; but it will appear to a reasonable man, after the exactest weighing of things, that the *location* of body rather in this than that place, implies the *act* of some Being; that the *figuration* of any particle of matter required an *external cause*; and that its *determined quantity* of solidity, rather than *more or less*, could not have been without a *determining principle*. These are the inseparable characteristicks of an *effect*; and let us pursue matter as far as we please, we can never find it divested of them. There are not more marks of an effect about a *house*, or a *statue*, than can be shewn about the *rudest piece* of matter; not so many, as about the least assignable part of it, if we consider the constituent particles of any assignable part, and the parts of a *house* or *statue*, as such. Why should I allow, if I find a piece of wood *shaped*, that this shape was given it by something; and if I consider any other part of matter as having *shape*, that this shape was given it by nothing?

chap. 13. Sect. 12, 13, 14, 15, 16 and 17.) But chiefly we conceive it as *necessary* and *infinite*, incapable of change, and impossible to be produced or annihilated. It would be contradictory to say, Space is extended in some places only. The Cartesians make matter infinite, to get free of infinite Space: so necessary is it even in their conception. They saw where-ever matter ended, pure Space would begin; this made them change the Aristotelian notion, as to the finiteness of matter; for Aristotle both made the world finite, and yet allowed neither place nor emptiness, nor time, beyond the heaven [*Ἄλλα δὲ δήλον ὅτι οὐδὲ τόπος, οὐδὲ χρόνος ἐστὶν ἔξω τοῦ κόσμου*. De celo, lib. 1. cap. 11.] And yet it is to be observed, that he did not constitute a pure non-entity, or negation of all Being, without the mundane limits; but places living, unchangeable, happy, eternal Beings there. [*Ἄλλα ἀμεταβάστα, καὶ ἀπαθῆ, τὴν ἀρίστην ἔχοντα ζῶν, καὶ τοῦ αὐταρκείου, διατετα τὸν ὅλον αἰῶνα*. Ibid.] It had been absurd to place a small quantity of matter amidst an infinite nothing. Thus we see what violence men offered to their ideas when they denied Space to be actually infinite. A Cartesian, or even an Aristotelian plenum is as certainly false as it is true that there is such an affection of body as motion. In short, we cannot conceive, without repugnancy, that Space can be taken away, or that it was stretched out at any certain time, or by a particular action; or, contrarily, that body was placed rather in one part than another of this necessary immensity, without the particular act of some Being; or that it was extended thus far only, and no farther, without the determination of an external agent. The extension of body then implies a particular action exerted, but the extension of Space implies no such thing: so we cannot truly say Space was extended, nor apply the term extended to both in the same sense. I may farther take notice here, that they who make matter necessary (all sorts of Atheists) should observe the great difference between Space and matter in point of necessity. Space hath all the true marks of necessary extension, matter all the contrary. To say once Space was not extended implies a contradiction; it is impassive, without figure, location, division, situability, motion. Two things equally necessary, could not have opposite affections in respect of that very necessity.

Or



Or if I find the piece of wood lying *any where*, that it was dropt there, or laid there, by something; and if I consider any part of matter *as placed*, that it was *laid there*, or *placed there* by nothing? Certainly if we consider this point coolly, the *figure*, the *quantity*, the *location* of any part of matter, will as readily lead our thoughts to a cause of them, *not matter*; as the *dimensions*, *figure*, &c. of a house, lead us to a cause of them, *not the house itself*.

IX. Moreover, matter is a thing *moveable*, *divisible*, *situable*, with respect to other matter: these are all passive qualities of matter, no powers in it, but capacities or properties, whereby it is capable of being variously affected by *some Being* having power thus to *vary* and *modify* it; and all flowing from the nature or primary conception of it. Matter that is not *divisible*, or *moveable*, or *situable* with respect to other matter, is not matter at all to us: denying this of it, we deny every thing we conceive concerning it, and quite destroy our idea of such a substance. But to be passive implies to be *made* or *effected*. To have *power* and *activity* doth not straight conclude that the Being is not an effect: but to want these, and to be *entirely passive*, is an argument we may rely upon, that the thing is an *effect* of an active cause; otherwise it is passive for no reason, and by no agent, being passive by and from nothing. *Passivity* can only in the order of nature be consequent upon *activity*, as much as *effect* can only be consequent upon *cause*; and there is the same indissoluble connexion between what is *passive*, and that *from which it is passive* (something active namely) as there is between effect and cause. Passive and active, truly speaking, are but the just epithets of effected and efficient. It is not possible to assign an instance of a thing's being passive, but what relates either to its being *produced* at first, or having the manner of its existence *changed* by an active cause. If indeed it were possible that a passive substance should not be the effect of an active cause, but uneffected, uncaused; then there would be no need of any cause at all to produce any effect; for effects, or things of a passive nature, might be self-existent, which would confound reason, and put an end to philosophy.

X. Against this argument from the passivity of matter the following difficulty hath been moved. "There seems to be this material difference  
"betwixt a thing's being passive in relation to another Being, and a  
"thing's being an effect of a cause, that the first as a relation might never  
"exist,

“ exist, though the things exist ; the other must exist whenever the subjects exist. A thing may be of a passive nature, and yet never acted upon. This relation, if the cause of it is asked, flows from the nature and essence of things. May not one argue from a thing’s existing of an active nature, that the passive Being must necessarily exist in the same manner as you do in this place ? ” To this I answer first, that it is not to be understood how a relation should not exist, if the related things themselves exist ; nor how a thing of a passive nature should exist without ever having been acted upon. If *father* and *son* exist, the relation between them must exist : nay, if the *son* alone exists, being a related thing, this as much infers that the *father* existed in the generation, as if both the terms were expressed ; since a relation cannot consist in one term. In like manner, a thing of a passive nature is a relative term, and infers a thing different from itself to be the other term of the relation. If a relation flows from the nature of things, it flows from the nature of both the related things. It cannot flow from the nature of one thing only. Relations are as eternal between the ideas in the Divine Mind as any thing else ; but even there a relation doth not consist in one idea. And these ideas are the origin of the nature and essence of things. This expression, “ a thing may be of a *passive nature* and yet *never acted upon*,” passes over the *main point*, and shuffles in another instead of it. It supposes a thing of a passive nature *once existing*, no matter how, but without having been acted upon in the production ; and then insists upon a thing possible enough, that afterward it may never have been acted upon in having the manner of its existence changed. But the question here is, Whether a thing of a passive nature could exist without an active nature to produce it at first, or having been passive from something in the production ? This is supposed, and the relation, included in the term (*passive*) alledged never to have existed. But waving this, I say *the reason* why we conclude any thing to be an effect at all, is the observing it to want power and action, and yet seeing power and action exerted upon it. This is the *characteristick* of an effect, by which we know it to be an effect, though we were not present at the production of it : and it is the case of matter in particular ; and if, notwithstanding this, it may be still self-existent, the distinction of *cause* and *effect* is entirely lost in philosophy, and all reasoning is at an end, as I have said. Surely it can never be right to admit of such a principle as will stop our mouths for ever after, and entirely prevent our reasoning about any thing. Now there is not more power manifested

when matter hath the manner of its existence changed, by motion to wit, which is confessedly allowed to be an effect, than is manifested in it considered without any change in the manner of its existence; that is, by the terms, than is manifested in the mere production of it. *Any finite particle* of matter in this case may be considered as *a large system*, where numberless things are done: the figure of every part of it is determined, and that to *an indefinite minuteness*; the relative situation of all these *numberless under parts* is determined, and necessarily to be supposed determined in the very first production; the quantity of solid extension is determined: the indifference in all those particulars that were mentioned in N<sup>o</sup> 5. is determined to one certain circumstance out of millions of others equally possible, by something. I add then, There is not by far so much power manifested when matter hath the manner of its existence changed, (by motion) as is manifested in the simple existence of it. And could this thing exist without power exerted; that is, without an *active cause*; that is, without having been *passive* in the very production? Observe, It is contradictory to say matter exerted this power itself: allowing that now it has power, this is a power exerted previous to its having any; it is a power exerted in order to its *very existence*: it could not exert a power before it existed. And since matter itself is not this *determining*, this *operating*, this *powerful Principle*, is not the existence of an *immaterial Being* necessary, to give it its first existence? Can a figure be determined both in *magnitude* and *kind*, and yet by nothing? Must not then this *passive thing* have been *acted upon* in the very production of it? From a philosophical survey of the nature of matter we can never draw this inference, "That a thing may be of a *passive nature*, and yet never have been *acted upon*." Matter is not barely *situable*, but really *situated*, which requires a particular act. Thus situation implies not only the passive capacity, but that it hath actually *been passive*, from another thing, or acted upon: and this relation must have existed as soon as matter existed. The same is to be said in other respects; matter is not only *figurable* and *extendible*, but *de facto figured* and *extended*. It is not possible here (which I beg may be attended to) to conceive the simple passive capacity, without the relative act exerted. So much doth a near inspection of the nature of matter shew it to be *an effect*, that we could have no notion of it at all without the idea of the act implied, whereby it was produced. No man could have the idea of a substance *situable*, *figurable*, or *extendible*, which had not already *some situation*, *some figure*, and *a determined extension*: he

cannot



cannot conceive it existing without these; nor produced first, and receiving these determinations afterward. As to the question that is put, "If one may not argue from the existence of an *active nature*, that the *passive Being* must necessarily exist, in the same manner as I do in "this place?" I answer, By no means. I argue from the passive nature of matter, that it must have been produced by an active Being, and therefore have begun to be: but an active Being doth not require a *passive nature* to be the cause of it, (that is repugnant) as the dead or passive substance requires an active Being to be its cause. A dead substance doth not only want an active Being to act upon it before the manner of its existence can be changed; but to produce it at first; in which case there is no arguing conversly. Perhaps something farther may be intended in this objection; if any such thing be, what the reader will meet with towards the end of this Section, will furnish him with a sufficient reply to it.

XI. It is observable that this argument *from the passivity of matter* concludes in few words, from what has been said in N° 6 and 7. If a self-existent Being could not have depended on another Being for the *manner or mode* of its self-existence, that manner of self-existence could not have been changed at any time by another Being; for it must be equally self-existent at all times. If it depended for the manner of its existence on any Being, it must have depended for its existence itself on that Being; since existence is not of a different nature from the manner of it (N° 7.) And therefore it could not have been passive from another Being, so as to have the manner of its self-existence changed: it could never have been so much as capable of this. Therefore, *conversly*, a Being that is capable of having the manner of its existence changed, or of being thus far passive from another Being, cannot be uncaused, or self-existent; and therefore matter cannot be such (g). From this, and what has been said in N° 7.

(g) From what is said here, the answer to the last part of the difficulty in the Note at (d) is plain. It was said there that it seems possible, "that a thing which hath existed from eternity "may be annihilated, by a Being endued with the requisite powers." But an eternal uncaused thing must be *self-existent*, by N° 4. and by this N° 11, the manner of its self-existence *cannot be changed*, nor therefore taken from it; nor therefore can its existence itself be taken from it; that is, it cannot be annihilated. A self-existent Being was secured (*à parte ante* eternally) from such contingency: no other Being (supposing another) could thus affect a self-existent nature. And it is absurd to suppose that a Being might *rise up in time*, which should

No 7. it follows easily, and is to be marked as a consequence, *That the manner of self-existence must be immutable*; and that a self-existent Being can have no accidents, or things not necessary in it. And that there must be such a *self-existent Being, immaterial, the cause and author of matter*, is now evident, if what has been said in this and the former Sections be duly considered.

XII. It will be to no purpose, in order to elude the reasoning above, to say *Matter was extended and figured eternally and without beginning*, so that we are not to enquire *how, or when, or by whom*. This is to say it was extended, without being extended at any time; or figured, without being figured by any cause: it is to allow it to be an effect, and at the same time to deny it had a cause, in denying that ever it was thus passive from any thing, or at any time. In short, it is to bid us shut our eyes, and make no farther enquiry, but allow matter to be an *eternal passive lump*. If we say a thing was done, and at no time, we deny that it was done: in the same manner, if we say an effect was performed and by no cause, we deny it to be an effect. To say matter was eternally figured, or extended, is an affected, unintelligible expression, which, attentively considered, grows into a contradiction; for any thing done, as matter figured, extended, &c. as a thing done, must partake of the common affections of time, place, and a cause; inasmuch that if we deny any of these inseparable affections concerning the thing done, we deny the thing itself to be done. Matter ex-

have this power over it. What was a contradiction from eternity, must be a contradiction to eternity; because a contradiction can never become possible. It is a begging the question, to suppose any Being may be endued with the requisite powers to perform such an effect: It is as if I should say, A circle and square may be made to co-incide in all their points, by a Being endued with the requisite powers. It is a mighty unphilosophical prejudice to cloath a self-existent Being with all the marks of contingency in our imagination; and yet this taken the contrary way makes us think it so easy, as is insinuated in this objection, for a contingent thing to be self-existent. We make the transition from the one to the other a mere trifle; though their difference is so great, that it cannot be illustrated by any comparison the wit of man can invent: necessary existence is infinitely higher above contingent existence, than contingent existence is above utter non-existence. In short, this whole objection taken together amounts to the following plain absurdity. A Being endued with the requisite powers may make matter either a necessarily existent thing, or a contingent thing: for either of these two cannot be equally possible in the nature of matter itself, as is supposed, unless it be possible to some Being. I am the more express here that I may awake men to a due sense of the infinite difference of these two natures.

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ended, and yet by *no cause*, and at *no time*, or *no where*, is matter not extended, *no matter*.

XIII. And for this reason that a thing done must be done in some time, matter cannot be an *eternal effect* of an eternal cause, which is the second hypothesis I mentioned, by which some Philosophers have endeavoured to maintain the eternity of matter. This is still an affected unintelligible expression. The supposing an *action*, such as the effecting of matter must be, destroys the idea of eternity in *the thing effected* by that action. Every action must have a *beginning* and an *end*, these are included in the conception of action; for if it were without a beginning, the thing is not yet begun, or never was begun; and what was never begun cannot be now ended, as the production of matter is. The denying *these limits* to action, amounts still to an absolute negation of it. And to say matter was produced without action, is as much as to say, it was effected without *agency* or *efficiency*. It will be said, *God* is eternal, and naturally active; therefore an action may be eternal: for the *Philosophers* who say matter is an *eternal effect*, are not *Atheists*. But though it be certain that the *Agent* is eternal, it will never follow that any *particular act* is eternal. It is the nature of any particular act to be *circumscribed* and *temporary*, that is, in other words, to be limited both *before* and *behind*, which is a condition inconsistent with eternity. Upon this account it is to no purpose to endeavour to *entangle* the present question, and then to *lose* it among the *perplexities* concerning a *successive eternity*: for, whatever may be in that, when men contend that the eternity of a Being is made up of finite parts of duration, all succeeding one another, they are far from supposing that any part can be the first part; that would ruin their conclusion. Whereas here we are forced to conceive that an *effect* must receive existence by a *particular act*, and therefore to have a *first part*, or *beginning* of its successive duration; and this hypothesis asserts matter to be an effect. If this be well attended to, it will readily prevent a reply. And indeed if men would speak nothing but what they understand, and have ideas of, it is not conceivable what can be replied. For,

XIV. It is certain, by what is said above, that *some other Being* determined the *manner* of matter's existence at first, and therefore *the existence itself*, or gave it existence, since existence without a manner is impossible. Now let a man answer it to his own understanding, if when matter goes  
existence,



*existence*, that doth not plainly imply that it *had it not before it got it*. And if it ever was without existence, whether its existence can be eternal. It appears to me, that to say, an effect may be eternal, is the same as to say, a thing which had a beginning may want a *commencement*. It is of no consequence how far back we carry *this beginning* in our imagination, provided the conception of it adheres necessarily to matter, as it hath been shewn to do. The carrying a limit farther back will never make it *no limit*. Again, let this *antithesis* be taken notice of. It is the nature of a self-existent cause never *not to exist*; and it is the nature of matter, an effect *ex hypothesi*, to begin to exist. What conclusion are we to draw from this? Will it ever follow from it that, Therefore these two are *co-eval*, equal as to eternity? Here is not only a priority of *nature*, but of *existence*, or time; which I desire may be considered (*b*).

(*b*) It hath been urged here, "That it is not yet made sufficiently evident that a Being acting from eternity, may not always have acted in a particular manner on a subject; and consequently, may not also have produced the subject of its action in all time, or from eternity." But to this I reply, that this itself is a very dark unintelligible notion, and what no body, I think, can have a clear conception of, that a particular act, such as the production of *any finite particle* of matter may be spun out into an eternal duration, as if infinite power were employed *negatively*, or in *delaying* the effect; for so I presume we must conceive, if infinite power was always acting in producing the least assignable atom of matter: and in this argument, whatever agrees to any the least assignable particle, agrees to the whole mass, which certainly is not infinite. I mean, it must be said that every particle of matter must have been a-producing in all time, or from eternity; for if it was temporary, the production of a finite mass could be but temporary. And even though the whole mass were infinite, yet unless every the smallest atom of it was a-creating through eternity, any finite portion of that mass, *our earth*, for instance, would still be but temporary, as consisting of parts that did not take up an infinite time in the making. And the reasoning is the same with respect to the *sun, moon, &c.* And the inhabitants of any other *system*, if such there are, might still with reason conclude, that their system also was temporary: and so of others. Nor doth the difficulty end here; for as any assignable part consists of numberless other parts, by the same kind of reasoning, we must at length be forced to say, that *any infinitely little part was the work of Omnipotence through eternity*: for there will be all the same arguing about the least finite part as about the greatest. Besides, it is to be observed, that to suppose a subject *eternally pre-existing*, as is here done, is no reason to infer that a subject may be eternal in the production, or before it be made to exist. Not to mention that to suppose a *passive subject* eternally pre-existing is equal to a tacit begging the question that matter is eternal without any production; *contra demonstrata*, if the arguments in the first part of the Section be right.

XV. It was a hankering after the eternal atoms of *Democritus* and *Epicurus*, and that they might get matter some way or other allowed to be eternal, which made some *Platonists* contrive such evasions, contrary to *Plato's* own sentiments. He himself said, "God made the world *visible* and *invisible*, out of no pre-existing subject; and that his *will alone* was sufficient for the existence of things (i)." Where, by the way, it is very obvious, that *what is made out of nothing* cannot be eternal: for it did not exist, or was not effected, when as yet it was nothing, so to express it, or as long as it was nothing. And there is *no medium* between having been *once nothing*, and *eternally something*: that is, we cannot join these two together, and make a *compounded*, or *third nature* out of them; such a thing, to wit, as should have been *once nothing*, as being effected, and yet *eternal*; and every one must perceive that the present scheme supposes these two inconsistent things joined together. The followers of *Plato* did not agree among themselves. Some of them made matter eternal without being an effect, a *sister-substance* to the *Deity*, ἀγένητον ἢ ἀδελφῶν ἰσίαν (k), as if the lowest Being went as high in the highest perfection of *self-existence*, as the *supreme* Being. Their manner of explaining this is worth observing. They said, "God was not *able* or *sufficient* of himself to make a world, but "used the *co-operation* [συνεργία] of eternal matter; and that, all things "existing virtually in matter beforehand, he only delineated, shaped "and wrought them off, out of the common mass, and from their original rude form (l)." They indeed excluded *Epicurus's* chance; but they

(i) Καὶ κατὰ Πλάτωνα Θεὸν αὐτῇ προϋφίστησι ἡ σκέψις, πάσης ἑμφανὲς τε καὶ ἀφανὲς δημιουργοῦ διακοσμήσεως, ἢ ἔκ μηδενός φησιν ὑποκειμένη προαγαγὴν τὸν τεχίτην· ἀρκεῖ γὰρ αὐτῷ εἰς ὑπόστασιν τῶν ὄντων τὸ βέλημα. Hierocl. de Providentia & fato, ex Photii Bibliotheca.

(k) Ibid.

(l) Καὶ τί, φησὶ, καταλέγω σοι τέχνης, ὅπερ γὰρ καὶ τῶν Πλατωνικῶν τινες ἐκ ἀφ' ἑνὸς τὴν περὶ τοῦ δημιουργοῦ Θεοῦ διασώζουσιν ἑνοίαν; ἢ γὰρ ἰκανὸν αὐτὸς εἶναι ᾗδήσαν αὐτοτελῶς ὑποστῆσαι δύνασθαι κόσμον οἰκίαν δυνάμει καὶ σοφίᾳ ἐξ ἀρχῆς ἐνεργεῖν. ἀλλ' ἀγνήτης ὕλης συνεργία, καὶ τῇ μὴ παρ' αὐτῷ ὑποστάσει φύσει καταχρῶμενοι μόνως δημιουργοῦ δύνασθαι· πάντα μὲν δυνάμει προϋποκειμένον ἐν τῇ, λιγομίση ὕλη. αὐτῷ δὲ οἷον διαζωγραφεῖν αὐτὰ, καὶ τάττοντος μόνου, καὶ διακρίνοντος (μόνου) ἐκ τῆς ὕλης σχήματος. Ibid.

Here, if we consider what hath been proved before, *viz.* that it is the power of the *Deity* exerted, which constitutes the very solid nature of matter; it must appear a direct contradiction to say *any thing existed* virtually in it. One would almost think these *Philosophers* had been *Carpenters* by trade, and had confined the *Deity* to their own manner of working;

they made a dead substance as necessary as a living Being in the nature of things : as if *self-existent deadness* must have contributed *its help* to self-existent Power, before a world could be formed. At this rate the *negation of every perfection* might be made a *self-existing thing* ; and there might be an eternal necessity of *imperfection*, as well as of perfection in nature ! They imagined infinite power could not produce a certain effect ; therefore they kindly assisted it out of their own fancy, by supposing the effect already performed, and all the difficulty over. What can be easier ? It is just such an argument as if we should contend, that no Being could *cut* and *form* the parts of a watch, though it might set them together, if we suppose them *eternally pre-existing* : and therefore *the parts pre-existed eternally* ! The *self-existence* of a dead inactive substance is as great an absurdity, when we suppose the Deity to co-exist with it, as if we denied him, or rather greater ; because then we allow the existence of a *Powerful Cause*, which we deny on the other hypothesis. And, as hath been said above, there is as much power actually exerted, be it by what it will, before the rudest piece of matter could be made simply to exist, as could be exerted in changing the manner of its existence : and that it should be exerted, and by nothing too is strange. We allow that a power must be actually exerted to move the particle A from B to C, or along the line B C : but the *intelligent Reader* will never deny, that it requires power to place it at B first, and to *determine* all those things likewise in its simple existence, which I have shewn are to be determined.

XVI. The other sort of *Platonists* allowed God to have made the world, both as to *form* and *substance* ; but yet so as that it proceeded from a necessity of his nature, and was a consequence παρακολούθημα, of it (m) : or so that he had no priority of existence before his own effect,

ing ; at least their whole description favours of the *lowest Mechanick*. If matter be utterly inactive, how can it *co-operate* ? What hath no *ίέργιον*, can never afford *συνεργία* or assistance to another Being.

(m). Καὶ ἐν βύβλῃ, παραδείγματι· σὲ τιν τῶν γινόμενων ἐξαγάγω πρὸς τὸ ζητούμενον· φασὶ γὰρ ὅτι καθ' αὐτὸν αἴτιον τὸ σῶμα τῆς ἰκθύος σκιᾶς γίνεται· ὁμοχροὺς δὲ τῷ σώματι ἡ σκία, καὶ ἔχ' ὁμοτιμὴς· ἔτω δὲ καὶ ὁ κόσμος παρακολούθημα ἐστὶ τοῦ Θεοῦ, αὐτὸν ὄντος αὐτῷ τῷ αἰνῷ, καὶ συναίδος ἐστὶ τοῦ Θεοῦ, ἔστι δὲ ὁμοτιμὴς. Zacharie Scholiast. as cited by Dr. Clarke. Another of these comparisons is to be found in the same place from S. *Augustin*. Sicut enim inquirunt [Platonici] si pes ex eternitate semper fuisset in pulvere, semper ei subesset vestigium, &c.

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which therefore had no beginning in time (*n*). But if God created matter by a necessity of nature, he could never *not create it*; for, as hath been shewn, there is no mutability in his nature, and this necessity must always remain: or God must create matter *constantly* as well as *necessarily*. Shall we think that he created an infinity of it; and that (no more after that being possible) he is forced to annihilate some part again, that he may answer the necessity of creating? something like this must be supposed on their scheme. And if, on the other hand, *it were possible* he should produce matter *in time only*; then it was possible too that matter should not be eternal: and if it were possible it should not be eternal, by what argument can a man shew that it was *really eternal*? They who would defend the eternity of matter, must at any rate stick to the impossibility of its being otherwise, or that God produced it necessarily. And indeed, these men have endeavoured to explain themselves by comparisons that shew they had this notion of the *Deity*. "As the *Sun*, (say they) if it had eternally existed, would have eternally *produced light*, or an *opaque body* a *shadow*, or a *foot* a *footstep*; so the *material world* is an *eternal production*, or *consequence* of God who is *eternal*." It is easy to observe here first, that the *sun*, the *body*, or the *foot*, are not *efficient causes* producing an action of themselves, but things of a passive and necessary nature, which *another Agent* uses as *instruments* to produce the effect. A foot, *v. gr.* is but the instrument or thing, whereby a *free Agent* (man) produces the *print* or *vestige*: And to say, "If a man had eternally produced the impression of his foot in *sand*, or the signature of a *seal* in *wax*, it would have been an eternal effect," is no proof or illustration of the thing intended to be cleared up by the comparison, but a bare supposition of it in other words. The production of an impression in wax or sand is an action, and implies the limits of a beginning and an end; for it cannot be conceived that any one should be eternally a-putting on an impression, without

(*n*) *Qui autem à Deo quidem factum fatentur mundum, non tamen cum volunt temporis habere sed suæ creationis initium; ut modo quodam vix intelligibili, semper sit factus.* Ibid. ab eod. Here how could the world, if it had a *beginning of creation*, be without a beginning of time? This is *scarce intelligible* indeed, or rather *plainly contradictory*. But though *Philosophers* of all men are obliged to speak nothing except what they understand, and conceive possible; yet they are the only men in the world perhaps, who have spoke the greatest nonsense; inasmuch that there is scarce any thing so absurd, which some or other of them have not maintained.

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having at any time really put it on. The same may be said concerning the *Sun* producing light, or an *opaque body* hindering the progress of it: since these are *necessary things*, and not *free Agents*, it is the same as to say, if some Being had from eternity given that property to the *Sun*, whereby it *emits light*, or that property to *another body*, whereby it *casts a shade*; then light would have been *eternally produced*, and a shade *eternally projected*: which supposes the thing in question, but no way shews how it is possible. All these examples preposterously suppose the *unaffected eternity* of matter in some circumstance or other, in order to shew that it might have had an *effected eternity*, so to speak; which is, I conceive, to suppose one absurdity, in order to prove another. Besides, they change the question to this, Whether *God* be a *free Being*, or a *necessary Agent*, as it is called; though any *Being*, so far as it is determined by a *physical necessity*, is rather a *patient* than an *agent*, being passive from that thing which imposes the necessity. To make their comparisons suit the design, it ought to follow, that it is the nature of *God* to create matter, as necessarily as it is of the *Sun* to emit light, which cannot *not do it*.

XVII. But to be a little more particular concerning necessity. To be determined then by a physical necessity is a *mark* of a *dependent nature*; as here in the *sun*, or *opaque body* (o): and the dependence is upon the *Being imposing that necessity*. Now to extend this kind of necessity over the *first* and *supreme Being*, implies just this contradiction, That there is some Being prior to the *first*, or *superior* to the *Supreme*. This Being imposes a phy-

(o) Here this question hath been put, "Do not those necessary effects, which have been ascribed to the *Sun* and *opaque body*, arise from their Nature? And why is it more a mark of dependence in them, than in a triangle to have its angles equal to such a sum?" But I answer, There is no parity between the two instances adduced. That the three angles of a triangle should be equal to two right angles is an *eternal truth* which obtains by an *absolute* or *metaphysical* necessity, and doth not concern any thing of *existence*: and *truth* is none of those things that can become *dependent*, or be *created*, or *made*. How absurd would it sound to speak of *creating truth*, or making *more truth exist*? The *sun* or *opaque body* contrarily, are *substances existing*, capable at least of being made or created, and but simply possible in idea, not absolutely or eternally necessary. Thus they cannot be other than *dependent*. That a *body* should *emit* light, or *reflect* it, rather than *transmit* it, is a positive institution of some Being so ordering it; and therefore a mark of dependence, as I assert. There would be no propriety in saying *A mathematical truth is a depending thing*. In short, we must distinguish between ideas that were eternally and necessarily connected in an *infinite Mind*, for these make eternal and absolute truths; and ideas that were but only barely compatible in it eternally, which constitute the natures of all created substances,

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physical necessity on all inanimate things in nature: that is, as we have seen in the second Section above, *really acts upon them*; so that the action which we think we discover in them, is his immediate action. *This action* discovering itself several ways in the several bodies of the *universe*, and always uniformly and regularly, is termed *necessity* in them, as in a stone falling downward; and called, with respect to the uniform constancy of it, by Philosophers, *the law of their nature*. And it is from these instances only, that we get a notion of physical necessity; which I wish might be attended to. But men getting the first notion of it thus, and then extending it over the *supreme Being himself*, proceeded contradictorily, imagining there was still some superior nature above the Supreme: which was to make a *chimera*, a contradictory creature of the fancy, the *supreme*, or rather *supremest Cause* (p).

XVIII.

(p) When Cyniscus confutes Jupiter in Lucian, and makes him a Drudge to fate, insisting that fate performs all, he adds these remarkable words: 'Οὐδ' οὐδὲ τῶν ἱμαρμήν τιμῶντις αἱ, αἱ δὲ δὴ αὐτὸ ἐπράττον· οὐ γὰρ οἶμαι δύναται εἶδ' αὐταῖς εἶτι ταῖς μοῖραις ἀλλάζει καὶ μετατρέφει τι τῶν ἐξ ἀρχῆς δεδωμένων περὶ ἑκάστου. This wonderfully exposes a chimerical necessity, and shews the absurdity of our prejudice, though contrary to the *Author's design*. Jupiter is a slave to the *Destinies*: the *Destinies* themselves can change nothing in those decrees that were originally established about every thing. What Being was it then which established these *unalterable decrees*? That indeed is the secret. It is an *empty* and *unsupported necessity*; something which is *nothing*, which tyrannizes over all things. Let an *Admirer* of *fatal necessity* solve this Riddle.

This argument will perhaps force him to say, that this fatal necessity is in the nature of the supreme Being himself, without running higher for it: and, I think, this is what the modern Scepticks generally hint at now, and mean, though perhaps they do not speak out. But let them explain why there should be a *necessity of imperfection* in a necessarily existing Being, that is, in the perfectest Being? To admit of a *mixture* of perfection and imperfection, and then to assign the limits of each, will confound all their philosophy. There is certainly a *necessity of perfection* in such a Being: and to say there is likewise a *necessity of imperfection* in him, is to say there are two *absolute opposite necessities* in him, which would destroy each other; and this would leave no necessity of perfection in him at all. This looks like direct Atheism: and certainly the admitting a *contrariety* and *opposition* in the nature of the *supreme Being* will always end in Atheism. As I argued above with respect to existence, so I may argue here. There is a *necessity of some perfection* undoubtedly; otherwise there would have been a necessity of *universal and eternal imperfection*; and then *no perfection* could have been *so much as possible*. And if there be a *necessity of any perfection*, it must be a *necessity of infinite perfection*; because there could not be two *opposite necessities*, both of perfection, and its contrary; and because imperfection, *being a negation*, is not a thing of which *necessity* or *eternity* can be predicated of, any more than of nothing. Thus a necessarily existing Being is *necessarily infinitely perfect*. Let us consider how *acting by a physical necessity* agrees with this. To act by a physical ne-



XVIII. On the other hand, to call this necessity of creating matter, a *moral necessity*, such, to wit, as determines the *Agent* to act, from the consideration of what is wisest and best to be done, supposes that they who affirm *God* to have been under this necessity, can assign the wise consideration which determined him to produce this eternal effect: *can assign* the reason, I say; otherwise the assertion must turn to *supposition* only and *conjecture*: besides, it is unphilosophical to suppose that moral necessity

cessity implies a *physical impotence* of acting otherwise; for if *God* had a physical power to act otherwise, he could only be under a *moral necessity* of acting as he doth, of creating matter, or doing any other action. Now this *physical impotence* will run through every part of the contrivance of the material world; if it be not absurd to speak of *contrivance* on this hypothesis, but rather proper to call it a *fatal and necessary constitution*. For example, *God* could not have made the *earth* to turn round on its axis in a *shorter* or *longer* time than it doth; effecting the present motion by a physical necessity, *i. e.* wanting power to have done otherwise; and the length of our *νυχθημερον* must be a thing as necessary and immutable as the truth of any one of *Euclid's* propositions. This the *Fatalists* cannot get over. He could not have created *one* atom more or less of matter than he hath done; this proceeding likewise from a necessity of nature: unless it should be said, as above, that he creates it constantly from this necessity, not having power to abstain. He could not have given any atom *another degree of velocity*, nor altered the *direction of its motion* in the least. Every thing in nature is an example of this. Supposing the number of hairs on a man's head to be  $n$ , he could not have caused that this number should be  $n+1$ , or  $n-1$ . The result of all is, It should imply a *physical contradiction*, that any thing in nature should have been otherwise than it is; since the *greatest power possible* was not able to effect any the least deviation: and that is again, Every thing *is as it is*, by a natural, inevitable fate. This is the conclusion as fair as I am able to draw it. Now if this be so, why need we any longer own a *nominal Deity*? I find no difference between this and the *rankest Atheism*. Here is a *fatal necessity supreme*, and the Deity still the *Drudge* of *all-performing destiny*. What is it to us whether things fall out by *blind chance*, or come to pass by *rigid, unalterable fate*? If what goes under the name of the perfectest Being can have no liberty, we can have none. On either scheme we have nothing to *hope* or *fear*.——Compare this now with that kind of necessity which I just now shewed must belong to an infinitely perfect Being. Hence let it be observed, that to give the Deity power without liberty, is to take away every reason we can have to own him, or to wish that he were: such a Deity serves the *Atheist's* turn as well as chance itself. But let it be remarked here, that this scheme of making the Deity act by a physical necessity is repugnant to itself. For upon this hypothesis it would be contradictory for any of the heavenly Bodies, to move with a less degree of velocity than they do, the Deity being physically impotent to effect this: and yet even this is a contradiction, that a Being who is able to do more, should not have the physical power to do that which is less. As if it were said, a man who hath strength to raise a certain weight, would not be able to lift the half of it. So much is the Deity but a name for fatal necessity upon this scheme!

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can determine an *Agent* to do what we must look upon as a physical contradiction, unless we could form a consistent idea of an *eternal action* having both *beginning* and *end*. The only moral motive which, I think, can be alledged, why God should have created the world from eternity is, *that he might have communicated happiness and perfection to rational creatures as soon as possible*. But we cannot conceive even this, without allowing him a *priority of time*, or to have been pre-existent to his own effects. And if we allow him a *priority*, that by itself cannot be less than an *eternity*: otherwise two limited periods must make up his eternity. Not to mention that, if we may speak of the reasonableness of an *earlier* or *later* existence, creatures that were to enjoy an eternity of existence *à parte post*, as it is called, have no reason to complain that they were not sooner created. *Mathematicians* allow that lines *infinite* or *endless* one way, are equal, whatever difference there may be on their finite extremes; and this supposition agrees with the exactness of demonstration: and we find *Lucretius* on his scheme, comforting those who are to die first, by telling them that the eternity of non-existence which they have before them, will be no longer than theirs who are to be born ages after. And this is applicable the other way. They who are born latest, have still an eternal duration before them. Besides that such creatures before they exist can complain of nothing, since they are not in the *predicament* of Being: a *non-ens* is capable neither of good or bad treatment. At this rate we might complain that we were not all born *at once*, nay that we were not all *eternal*, as eternal as *God*, *self-existent*. What absurdities may we not insist on, if we allow ourselves to proceed in this manner (q)? Upon the whole then, *reason* neither admits of matter's being eternally created, nor can

(q) Men who affect the height of *free-thinking*, and know not what it is, are even capable of entering such complaints as these here mentioned, in order to shew that the constitution of things is wrong. "Can any bounds be set to desire (says one); may not I wish to be as *wise*, as *powerful*, as *happy*, as any Being else is; *infinitely perfect*? Why am I made capable of desiring what I am not capable of attaining?" *Free-thinking* is certainly a good thing *if it be rational*: but if it exceed the bounds of reason, it of course becomes *absurd thinking*. If one would put the Question, *May not I desire what is absurd, a contradiction*? He would see what answer it required; namely, that he should desire *to be rational* in the first place. That all Beings should be equally powerful, happy, perfect, is the wildest absurdity. The constitution of things is not wrong, but such desire foolish and inconsistent. We cannot help, it is true, desiring to be as happy as possible: but our chief desire in order to this should be, *That things may have been constituted by infinite wisdom and goodness*. And if so, our wishes are prevented. Man will certainly be as happy as possibility and reason can permit. Would he have *reason* to give way,

can either *physical* or *moral necessity* be alledged why it should be so; and an eternal effect, though now become a *philosophical term*, will nevertheless be an eternal contradiction (r).

## XIX. Having

or *impossibility* to take place, to gratify his absurdity? Since free-thinking came to be in vogue, we run to it from a mistaken conceit, as if it were to *free us from all restraint, a permission to talk licentiously of every thing*. But on the contrary, it ties us down to the severity of eternal reason. To be free from reason is the greatest *slavery*, which we ignorantly affect. It is not free-thinking to *pull down every thing, and build up nothing*. That would be making war upon all the principles of action and reason itself.

(r) Mr. *Leibnitz* has contended that God could not have created the material world *less than infinite*, not having a *sufficient reason* to determine in what part of infinite Space a finite mass of matter was to be placed. But upon the same account it might be contended, that he could not have made it *other than eternal*, not having a *sufficient reason* to determine in what period of eternity, (if I may so speak) it was to commence. And then we have an *eternal* as well as *infinite creation*, from the force of this principle; which is a contradiction in terms, if by creation be meant a thing's getting existence which had it not before; and if it always had existence it could not be created. Examples of this sort are numberless: Of two *similar, equal and solid particles* of matter, and Dr. *Clarke* shews there must be numberless such particles, unless we will say that matter is all pores without any solidity in it; of any two of these, I say, God could not have placed the one in *any position*, or in any *particular body*, rather than the other, not having a reason to determine the preference. Again, since all might have been adjusted after the same manner as at present, if the heavenly bodies had moved from east to west, instead of moving from west to east; it follows, that God could not have made them move either way, not having a sufficient reason to determine which of the ways. Thus, according to this principle, God could not have made the world at all, nor the least thing in it; for such reasons will hinder every thing; and this *moral necessity* extended beyond its bounds into barely *physical circumstances*, ties down the power of the Deity more rigidly than *fatal necessity* itself. If it be asked, *Doth ever God act then without a sufficient reason for the action, and a wise view?* I answer, he doth not: but the *sufficient reason of action* is taken from the nature of the whole effect, the use and design of it; not from physical circumstances in themselves indifferent. God had the *most sufficient reason*, and the wisest designs to answer in creating the world, which are not, cannot be frustrated, by there being one atom more or less of matter in it, by its being created a minute sooner or later, by its existing in the present portion of Space rather than another; and we grossly misplace the sufficiency of the reason, when we lodge it in the *indifference of physical things*; and, in truth, it is no better than to make a slave of the Deity to deny his power to accomplish an end, because there are more ways than one by which it might be equally well effected. If it should be said, "We are not to suppose such indifference even in *physical circumstances*; nor therefore that God could have made the least variation in these, without a *sufficient reason* to determine him?" I answer, Mr. *Leibnitz* himself supposes such indifference, when he asserts, that there was no reason why God might not have placed a *finite quantity* of matter as well in one part of infinite Space as another. Besides, reason forces us to make this supposition. Every *infinitely little variation* of physical circumstances could not in the nature of things have had a *different sufficient reason*.



XIX. Having shewn that matter is not eternal in any sense, one is naturally led to observe, that the great and only objection against its having been created, is the old maxim, *From nothing nothing can be produced, nor can any thing return to nothing.* But this is of no force, when asserted in opposition to the efficiency of infinite power; unless it could be shewn that the creation of matter implies a contradiction, which cannot be done. For how can it be shewn that creation *ex nihilo* by infinite power is a con-

tradiction, to determine it. Let us remember that *extension is infinitely divisible*, in which single respect there will arise an infinite number of infinitely little variations in producing the meanest physical effect, every one of which must nevertheless have been determined by a *separate sufficient reason*: for if any two of such infinitely small variations had been without their determining reasons, an indifference would have stood in the way, and the effect have been stopt for ever. *Ex. gr.* God must have had millions of different reasons to determine whether the annual orbit of the earth should have been half an inch larger or less than what it is; for there are millions of variations between these extremes: nay, to determine whether one single hair of a man's head should have been half an inch longer or shorter, for, even this comes not to pass without his immediate power. And the same is to be said of the *divisibility* of time, *variability* of the celerity of motion, of its *direction*, with other numberless particulars.

Now to apply this to the present argument; Since any assignable portion of time, a minute, *v. g.* is as infinitely divisible as extension, supposing there was a sufficient reason determining the commencement of matter to a certain hour, nay to a minute of that hour, still God wanted an infinite number of other determining reasons whether it should commence at one rather than another of these infinitely little *tempuscula*. For if the reasons for any two had coincided, these two would have been indifferent, to the ruining of this scheme; or else the equilibrium whether creation should have commenced the millionth part of a minute sooner or later, must have kept God in eternal suspense, and made the existence of his rational creation impossible! Thus, as I said, this scheme makes the reasonableness, the wisdom, and the goodness of God in all his works depend on the determining the indifference of physical circumstances, *absurdly*; and fetters his power even more rigidly than *stoical fate*. It makes him (*absit blasphemia*) the *Asi* between the two bundles of hay, or the needle between the two loadstones. What pleasure can men take in endeavouring to shew that both God and themselves are slaves! For this new-invented necessity extended over man deprives him not only of self-motion but the power of willing; of which in another place.

We are to say then, that God hath a wise end in producing every effect; but that his own will is sufficient to determine him which of two or more indifferent means he shall use in producing it. And since we see that a world is really created, we must say this; unless men will run back to *fatal necessity* for determining the indifference of physical circumstances, and incur the absurdities shewn in the last Note.

From this reasoning it follows, That liberty consists not only in acting according to moral motives where they are; but in self-determination by the power of the will, where circumstances are indifferent; and that in the Deity himself.

tradiction,

tradiction, unless by denying such power altogether? And since *infinite power* implies no contradiction, it must at least be *possible*: and if it be possible it must be *more*, viz. *necessary*, since it is a thing that cannot be produced by any Being, which production we must suppose when we say, a thing is possible; a thing possible to no Being is impossible. And I have shewn elsewhere (see sect. 4.) the absurdity of supposing that any power (*finite or infinite*) should be only *casual*, or *accidental in nature* (s). As to the maxim itself; men indeed observing that in the *natural generation and corruption* of bodies, there was not any production of new matter, nor destruction of old, but only a change of the sensible qualities or accidents, arising from a change of figure, position, &c. settled this into a maxim in that case, That from nothing nothing could arise, nor any thing return to nothing; by the law of generation and corruption, that now obtains. And so far it was a good observation certainly, gathered from experience: but there was no *necessary connexion* between the ideas in it, why it should always be so, and impossible to be otherwise, (as there ought to have been to make it a *first principle*) otherwise men needed not have been beholden to experience for it, as they were (t), but would necessarily have seen it, or might at least have collected it from abstract reasoning. And how could men, by observing the law of generation and corruption that now obtains, collect that it was impossible to be otherwise, but by supposing that law never to have had a beginning, nor to have been instituted by an infinitely wise and powerful Being, but the effect of *surd necessity*, predominating in all things, and over all things; itself nothing, and belonging to nothing, as *Lucretius*, the great Abettor of this principle, did, who notwithstanding of his other principle, *chance*, is forced to have recourse to an *unsupported necessity* here? Besides, it is to be noticed that this maxim is not demonstratively certain even in the case of *natural ge-*

(s) See the argument in the Note (q) where *infinite perfection* is shewn necessary.

(t) See *Lucretius's* arguments for this; after abundance of other examples to prove that nothing can ever arise from nothing, or be reduced to nothing, he says,

*Postremo, pereunt imbres, ubi eos pater æther*

*In gremio matris terræ præcipitavit.*

*At nitidæ surgunt fruges, ramique virescunt*

*Arboribus: crescunt ipsæ, sætisque gravantur.* —

And at last he concludes,

*Haud igitur penitus pereunt quæcunque videntur;*

*Quando aliud ex alio rescit natura: nec ullam*

*Rem gigni patitur, nisi morte adjutam alienâ.*

Lib. 1. ver. 250.

neration

generation and corruption. The thing seems to be true and reasonable; but the means of observing fail men before they come to the subtilty of nature's work, and the first principles of body in these operations; and after that, all the experiments men can make, and all their observations, will never amount to demonstrative certainty. What arguments could a man oppose to one who denied the maxim to hold even in generation and corruption? None surely but making him observe the instances of generation, and corruption themselves; which shews the truth of what I here affirm. It is true, we say God and Nature do nothing in vain; and this is most certain; but the question recurs, *What is vain to be done?* Ease and difficulty with respect to us are not applicable to infinity of power (u): and in this last axiom infinity of power is supposed. If then, even in the case of generation and corruption, this maxim falls short of the self-evidence of an axiom, or intuitive truth, how can it be opposed to the possibility of creation by infinite power? Or where is the force of it compelling men to assert that brute-matter, a thing entirely of a passive nature, by their own conception of it, should be self-existent?

(u) We may observe in the works of nature [an apparent] frugality of means indeed; but a great profuseness and magnificence of materials. This we see in the exuberancy of seed annually produced from ever plant and vegetable; there is a great deal allowed for waste, so to speak. But pardon me, if I should endeavour to correct the first part of this observation, which regards the frugality of the means in producing any natural effect. We understand this, as if small power was applied, to bring to pass the greatest things, which is altogether wrong. The power of the Deity himself is every where applied, in the minutest circumstances, and in bringing to pass things to us the most contemptible. How can this be a frugality of means? There is indeed an admirable simplicity in the method, and an uniform law observed in the production of the several kinds of plants and animals, as much as is consistent with the variety of the species. This teaches us what we are to think of the wisdom of this Being. The method is varied by imperceptible degrees through all the tribes of the vegetable and animal kingdoms; and opposite extremes are thus joined by gentle and easy transitions. Even here then there is a richness, a profuseness of invention and contrivance. And the same efficacious Power is every where exhibited, to teach us what we are to think of him in this respect of his Omnipotence. It is so far from being true, that great things are brought to pass by small power, that, on the contrary, a stupendous power is manifested in the most ordinary appearance of nature. This the excellent Borrelli first observed in animal motion; and the ingenious Mr. Hales, by a course of happy experiments, hath shewn the same in the force of the ascending sap in vegetables. And since all is performed by the immediate power of the Deity; the means, the method, the materials, in every production of nature, declare him to be infinite in power, in knowledge, in goodness.



XX. Lucretius makes this his first principle, and the ground-work of his whole book (v): but his reasoning upon it is loose and frivolous. He argues from generation and corruption, to the first production of matter; as if the first formation of the material world, and the creation of matter, were to be accounted for by the same mechanical laws that now obtain in it, as it is formed; telling us if natural bodies rose spontaneously out of nothing, (as if ever men had supposed this without a divine power) we should see men spring out of the sea, fishes and birds from the earth, and herds of cattle burst out of the clouds (x): and thence infers, that matter could not at all have

(v) *Principium hinc cuius nobis exordia sumus*

*Nullam rem è nihilo gigni divinitus unquam.*

Lib. 1. ver. 150.

And this principle he proposes as an excellent remedy against the fear of any superior power.

*Quippe ita formidè mortaleis continet omnis,*

*Quid multa in terris fieri cælogue tænet.*

*Quorum operum causas nulla ratione videre*

*Possunt, ac fieri divino Numine rentur.*

*Quas ob rei, ubi viderimus nil posse creari*

*De nihilo; tum, quod sequitur, jam rectius inde*

*Prospiciemus, & unde queat res quæque creari,*

*Et quo quæque modo stant, opera sine Divum.*

Ibid.

(x) *Nam si de nihilo ferrentur omnia, nullus*

*Omne genus nasci posset: nil semine egredere.*

*E mare primum homines, è terra posset oriri*

*Squammigerum genus, & volucres: erumpere cælo*

*Armenta, atque aliæ pecudes: genus omne ferarum*

*Incerto partu cæta, ac deserta tenerent*

*Nec fructus idem arboribus constare solerent,*

*Sed mutarentur: ferre omnes omnia possent, &c.*

Ibid.

Here he first excludes all divine power, and then supposes, if creation *ex nihilo* were possible, things ought to start up out of nothing every Day: He makes the greatest instances of government and superintendence, viz. the regular observation of the several species in natural productions, so many arguments against a superintendence, and by a strange piece of logic ascribes all to a negative efficient. If any modern Sceptick should not have had leisure to consider the reasons upon which he rejects the Deity and his superintendence in nature: these are the great principles, and basis of his belief, as fair as I am able to represent them; and lest I may have made a mistake inadvertently, I have cited the Original. I shall only mention another argument for the eternity of matter, which is, "That, if it had not been eternal, all things would long ago have fallen into nothing, and sprung up again out of nothing."

*Præterea, nisi materies æterna fuisset*

*Antehac, ad nihilum penitus res quæque redissent,*

have been created, shuffling in an universality into his conclusion from very limited premises (y).

*De viliisque renata forent, quaecunque videmus,*

*At quoniam supra docui nil posse creari*

*De nihilo, &c.*

Ver. 541.

(y) Answers to metaphysical questions must be unentertaining to the greatest part of Readers, and perhaps scarce intelligible to any but those who could start the difficulties: however, I shall venture to add one Note more of this kind here, as in a place that will give the objection contained in the following Question, the greatest advantage. I had no design to enter into these nice disquisitions, at least in this place; but as a remarkable difficulty hath been occasioned by what I have advanced against eternal uncaused matter; if a rational solution can be offered, perhaps the ground of starting such difficulties may for the future be removed, and the truth more readily embraced. The question is; "If indifference as to the manner of existing is inconsistent with necessary existence, are not all the actions of a necessarily existing Being what may be considered as the manner of his existence, and therefore necessary?" This Question carries the greatest difficulty with it, when considered with respect to the creation of the Universe, which is, as it were, the beginning of a new period in the eternity of God: for after creation, the work of Providence commences, and the constant super-intendence of all his creatures, which seems a new scene of affairs to the Deity: so that we must either allow some change (with respect to action) in him, and therefore in the manner of his existence; or if otherwise, his actions must be as necessary as the manner of his existence; and then we must admit of the consequences of this physical necessity, which leaves him a Being whom we need not regard. To this I answer, first, That it hath been shewn above, to satisfaction, I hope, That indifference as to the manner of existence is inconsistent with necessity of existence, or that the manner of necessary existence is itself necessary; as also, That the actions of the Deity cannot proceed from a physical necessity; that would only make him a powerful, but *surd* Being, (i. e. having power without intelligence) which is inconsistent with the necessity of infinite perfection. Now these two points being proved true separately, and independent of each other, the right method of going on in the investigation of the truth will be, to draw this corollary from them joined together, That these actions of the Deity, because not eternal, cannot be considered as the manner of his existence; and that, though free, they yet produce no change in the manner of it. And if I had made this a consequence from these two points, every one must have granted, that I proceeded according to the method of demonstration, and that therefore the conclusion itself was unexceptionable. It can never be allowed, that what may follow as a consequence from a proposition proved, may be made an objection against it. Such a method would overturn all geometry. Instances of which I need not give. Dr. Barrow, after a Theorem of Euclid (16 El. 3.) says, *Ex hac propositione paradoxa consequuntur, & mirabilia bene multa.* It would be hard to make one of these wonderful consequences an objection against the demonstration from which it follows. This is that case, in which we know certainly that a thing is, but know not the manner how it is; and the present point is an instance of it. It is certain, that God doth not act from a physical necessity, and that the manner of his existence is immutable; whence it follows that his actions, though free, do not change the manner of his existence: this, I say, is certain; but the manner

*Being* it exceeds our comprehension. (And yet with that humility which becomes us when we speak of this infinite, wonderful, adorable Being) we may go a little farther in this point, and reason thus.

If a rational mind is *very finite*, as ours is, it can have but *one object* under view at once, or one particular thing under the consideration of the intellect at a time; and it can therefore *will* but *one thing* to be done at once. This we can easily conceive from our own experience. But if the mind be *less limited*, or perfecter in kind, which, as not involving contradiction, I have liberty to suppose, it will be able, as such, to have *two objects* under the consideration of the understanding at once, and to *will* two distinct things to be performed at once: and its *power*, corresponding to its *other perfections*, will be able to perform both at once. And, without mentioning other intermediate degrees, we may imagine the progression to go on. Now, if we suppose the mind to become at last *infinite*, or all limits to be taken away from it, it must (*as such*) have an *infinite number of objects* under the intuition of the intellect at once, or an infinite number of things all in view at a time; and this, by the same kind of reason as a very finite mind can have but one; and be able to *will* an infinite number of things all to be done at once: and its *power* being also infinite, or without limitation, it will be able to perform them all at the same time, without *perplexity* or *disorder* (instances of which I hope have appeared, when the *various, indefinable, universal action* of an *immaterial Being* upon all the parts of matter, in all places, and at all times, was shewn to be necessary to support the material world.) This, I say, it will be able to do *qua infinite*. Infinite perfection directly implies this; and it would be absurd to deny it, because we cannot conceive the *manner* of it.

This *first step* being duly weighed, let us next consider this Infinite Mind as *necessarily existing*, and in that respect it must have had an *infinite number of objects* under the view of the intellect, not only *once*, but *always*. Necessity of existence doth not *limit* infinity of perfection, but *shows that infinity necessary and eternal*. It would not be having an infinite and necessary understanding, (*i. e.* a *necessarily infinite understanding*) to be able to comprehend an infinity of things *at once*, and *for a little only*, and then to *wink* and *relax*: we must own that such an understanding must have had a comprehension of infinite things, (*i. e.* an *infinite comprehension*) necessarily and eternally. Thus then a *necessarily infinite intellect* must have had all objects necessarily and eternally in view, and under immediate prospect. And this is the main point gained. This is *infinite knowledge*! And such a Being must have had infinite knowledge by a *physical*, or *natural necessity*; even those who are least attentive must see that the terms all along imply it. But mark, *This is a physical necessity of perfection*, as it ought to be. To make the Being *free* here would be to make it *imperfect*: we might as well say, *free to exist necessarily or not*, as free to have infinite knowledge or not to have it.

The next thing to be considered is, that *this Being* having all things always and necessarily in view, must always and eternally *will* according to his infinite comprehension of things; that is, *must will* all things that are *wisest* and *best* to be done. There is no getting free of this consequence. If it can *will* at all it must *will* this way. To be capable of knowing and not capable of *willing* is not to be understood; and to be capable of *willing* otherwise than what is *wisest* and *best* contradicts that knowledge which is *infinite*. Infinite knowledge must direct the *will* without error. Here then is the *origin of moral necessity*, and that is really of *freedom*: for the Being is not determined to this constant and eternal act of *willing*, by a *physical energy* or *power* constantly acting, but from the knowledge of the *eternal aptitudes* and *agreeableness* of things to each other; or in other words, from the intuition of the *eternal relations*



lations of its own ideas, which are the archetypes of things. Indeed to will by a physical necessity, or by the determination and impulse of an external physical cause, is, when nearly considered, a direct contradiction; it is not to will, but to be involuntarily determined; the same as to say, to will whether a thing wills or not, or to will against the will. Perhaps it may be said, when the divine will is determined from the consideration of the eternal aptitudes of things, it is as necessarily determined, as if it were physically impelled, if that were possible. But it is unskillfulness to suppose this an objection. The great principle is once established, *viz.* That the divine will is determined by the eternal reason and aptitudes of things, instead of being physically impelled: and after that the more strong and necessary this determination is, the more perfect the Deity must be allowed to be. It is this that makes him an amiable, an adorable Being, whose will and power are constantly, immutably, determined by the consideration of what is wisest and best, instead of a sad Being with power, but without discerning or reason. It is the beauty of this necessity that it is as strong as fate itself, with all the advantage of reason and goodness. This constant act of willing proceeds from his knowledge, it is true, but as proceeding from knowledge, it is to be considered as determined by knowledge; and knowledge must be considered as having a priority of nature, though not of time. Hence the wonderful nature of the divine will, that it is both immutable, as proceeding from a necessary physical perfection; and yet infinitely rational, as being the issue of infinite and true knowledge, or the knowledge of all truth. It is strange to see men contend that the Deity is not free, because he is necessarily rational, immutably good and wise; when a man is allowed still the perfecter Being, the more fixedly and constantly his will is determined by reason and truth. Liberty, as I have said before, consists in being determined by moral motives (the more unerringly and constantly the better) in opposition to being physically impelled, (which indeed takes away the act of willing, or any act, properly speaking) and in self-determination by the power of the will amidst the indifference of physical circumstances. And let it be here remembered that all this follows easily and without the trouble of such a long deduction, when once it is shewn that there is a necessity of infinite perfection, that is, of a Being infinitely perfect, which appears from what is said above; for since all this is a perfection, it must be in that Being. And who, though ever so much engaged on the opposite side, will venture expressly to say that to be determined by moral motives is not a perfection? Or to be self-determined by the power of the will, where physical circumstances are indifferent, in order to effect a wise and good purpose, is not a perfection?

But to go forward, if next we consider the actions of this Being as exerted upon his creatures in consequence of this eternal act of willing, they are (as in consequence of that) guided by the absolutely greatest council and wisdom, and therefore performed in the fittest time, manner, circumstances. But what is chiefly to the present purpose is, that though vast power is exerted, as in moving the heavenly bodies, for instance, yet it is exerted without struggle, effort or contention of strength, so to say. Ease and difficulty are not applicable to infinity of power: they are the marks of our limitation, but vanish here. That power would not be infinite, by which one thing were done smoothly, and another thing with rugged labour and toil. Let him who hath the term [infinite power] often in his mouth, consider only the import of it. To perform is equally easy as to will to this Being, and that without a figure, but upon the foot of reason and argument. All this is still implied in necessary infinity of perfection. And this at length will help us to conceive that even the actions of this Being no more change the manner of his existence than his willing them, there being no emotion, stress or contention in performing the effect that might occasion an alteration. Nor can they be considered as the manner of his existence;

istence; since they are *temporary, successive* (as in the motions of matter) and *not necessary*, as it must be.

We shall better conceive this, if we consider *why*, and *how*, our manner of existence is constantly changed; and this particular deserves our attention. In short, this happens in our bodies from *motion, relative situation, and a constant flux of parts*; from all which an immaterial Being must be free. In our minds the manner of existence is changed from a *constant succession of ideas*, and the occurring of *new objects, new desires*, and the *avilling new effects* to be produced. This happens from the finiteness of our minds. If we have any compass of thought, knowledge, ideas, will, it must be by the *successive admission of new objects* into the mind. In an *Infinite Mind* it is quite the reverse of this: all things must be always and eternally in view, whence no *new object* of desire can happen, nor therefore *change in the will* (which is the great source of the change of the manner of existence in our minds); and though the actions are performed *in time*, and commensurately with the *successive existence* of creatures, yet this is without *change of thought, motion, or any kind of alteration*: it is without calling the attention from *other things*, to apply it to *that thing*; or calling the power from *other places* to apply it in *that place*. This is a wonderful superiority of nature; so far above our way, that we are struck with admiration at the thought; and yet the certainty of the conclusion will make one contemplate it with pleasure.

It was from these considerations that Boetius defines the eternity of God to be *vita interminabilis tota simul & perfecta possessio* (De consol. phil. lib. 5. prof. 6.) for in a *necessarily infinite intellect* all things must be *always* and *necessarily* present; from *necessary infinity of knowledge* all the purposes of wisdom and reason must be *avilled* by one *indisment act*: no *new object* can offer to the understanding, no mutability can happen therefore to the *will*, nor therefore can there be any *rising or falling* of pleasure and happiness. And this is indeed *interminabilis vita tota simul & perfecta possessio*; which co-incides with this, *That the manner of necessary existence is itself necessary, and necessarily the best*. Quod (says this Philosopher) *ex collatione temporalium clarius liquet; nam quicquid vivit in tempore, id praesens à praeterito in futurum procedit: nihilque est in tempore constitutum, quod totum vitam suam spatium pariter possit amplecti*. This is undeniably a mark of imperfection *to live by change, to lose what is past, to want what is yet to come*, and to place infinite happiness in a succession of things, though all pleasant. If any state were good, why should it pass? If any thing will be pleasant, why should it not be present? Why should it be first in expectation, a minute in enjoyment, and then in reflexion only? This, I say, is plainly a mark of imperfection; it is our own state; and therefore to be denied concerning a *Mind* infinitely perfect. If the *Roman Consul* had gone into the sceptical ways of thinking now fashionable, he would not have left us such a *noble*, such a *philosophical*, such an *exalted idea* of the Divine Mind. See here *Dr. Clarke's Demonstrat.* Part 1. Prop. 5.

Lastly, To obviate the main thing objected; from all this we may see that when God created the Universe, as there was no *new object* of knowledge presented to his *Intellect*, nor *new desire* to his *will*, so there was no *new difficulty* started to his *power*; since, as was above shewn, to *perform* must be equally easy to necessary infinity of power, as to *will* the performance. The creation of a world, the superintendence of his own works, the methods of Providence, and the whole scheme of procedure, especially with respect to rational Beings, were no *novelties* to him, but what he had in view, *familiar* (if I may so say) from eternity. Let it be observed here (lest I should be forced to make unnecessary repetitions) what I have shewn above to be the import of a *necessarily infinite intellect*. In a word, after we have once more considered that, if there be a *necessity for any Being*, it must be for *infinite Being*; and if there be a *necessity for any perfection*, it



it must be for *infinite perfection* (it cannot be for *infinite* diminished by *any quantity*, in either case): after this, I say, it would be a low, unphilosophical prejudice to think that God could be lonely, and without entertainment, before the existence of his own effects, or put to any difficulty by them after they existed; that he could have bettered his condition by them, or that it would have been worse without them.

I cannot end this Note, though already too long, without saying something of the *unsuccessive existence* of the Deity, or of his *unsuccessive eternity*. This is an extremely metaphysical speculation, and there hath been much controversy about it. What we may say safely in it will also be easily seen, I humbly conceive, from what goes before. There is certainly no succession of *ideas, desires, will*, in the *Infinite or Necessary Mind*; and therefore no *change* or *mutability* in it. This follows when it is shewn that the manner of existence of a necessarily existing mind must be itself necessary and immutable, of which I have given two different demonstrative proofs above (N<sup>o</sup> 6 and 7.) Thus there is really no actual succession in the manner of God's existence, that is, in his eternity, nay, not after the existence of a material world. The changes and successions that then happen, happen to something else not to HIM. And yet, since the *successive* or *changing existence* of creatures is co-existing with the *unsuccessive* and *immutable existence* of the Deity, we may see that this co-existence might have been ages sooner, or that the one doth not exclude the other, nor is inconsistent with it, but, as being infinitely greater, comprehends it. We see in another case, that though all *motion* (a mark of finity, and itself successive) is in *Space*, yet *Space* itself is *immoveable*. It is, as I am apt to think, something like this *successive* and *unsuccessive existence*, both co-existing, which *Aristotle* means, when he allows *time* to be within the *mundane limits*, but not without them. Consider his own words (*loci supra citat.*) *Χρόνος δὲ ἐστὶν ἀπὸ τοῦ κινήσεως· κίνησις δὲ αὐτῆς ποσὸς ἀμειβόμενος καὶ ἴσος· καὶ δὲ τὸ ἀμειβόμενον διδύκται ἐπὶ τῷ ἴσῳ, ὅτ' ἰσχυρὰν γινώσκει αὐτὸν.* As if he had said, "There is an *unsuccessive existence*, where-ever there are not changes and vicissitudes by motion." Thus far then, I think, we may go with clearness, and understand what we say. On the other hand, it is, I think, scarce intelligible, to apply this *successiveness* or *unsuccessiveness* (so to speak) to *time* itself, or to *eternity*, abstractedly taken: these seem applicable only to Beings existing the one or the other way. *Time* or *eternity* are only affections of Being, and nothing existing by themselves: therefore they seem capable of no alteration or change in themselves, abstracting from the Beings existing in them. If all *created Beings* were taken away, all possibility of any *mutation*, or *succession of one thing to another* would appear to be also removed. Abstract succession in eternity is scarce to be understood. What is it that succeeds? One minute to another perhaps? [— *velut unda supervenit undam*]. But when we imagine this, we fancy that the *minutes* are things separately existing, which keep on their own course, though there were no Being at all existing. This is the common notion, and yet it is a *manifest prejudice*. *Time* is nothing but the *existence* of created, successive Beings, and eternity the *necessary existence* of the Deity. Therefore if this necessary Being hath no change or succession in his nature, his existence must of course be unsuccessive.

We seem to commit a double over-sight in this case: first we find succession in the *necessary nature* and *existence* of the Deity himself, which is wrong, if the reasoning above be conclusive: And then we ascribe this *succession* to eternity, considered abstractedly from the *Eternal Being*, and suppose it [— one knows not what] a thing subsisting by itself, and flowing one minute after another. This is the work of *pure imagination*, and contrary to the *reality* of things. Hence the common metaphorical expressions, "Time runs apace." "Let us lay hold on the present minute:" and the like. The Philosophers themselves mislead us

by



by their illustrations. They compare eternity to the motion of a point, running on for ever, and making a *tracelss* infinite line. Here the point is supposed a thing *actually subsisting*, representing the *present minute*, and then they ascribe motion or succession to it; that is, they ascribe motion to a mere non-entity, to illustrate to us, a *successive eternity*. Hence all the perplexities of a *past eternity*, made up of *finite successive parts*: and hence the contradiction of a *punctum stans*; though in this case a *punctum stans* is no more a contradiction than a *punctum movens*: for in truth the *punctum* is nothing at all, either to stand still or move forward. As to the expression *nunc stans*, by which some *school-men* have chosen to describe eternity; it certainly implies opposite ideas, if applied to our existence, or if our manner of existence be applied to the Deity. For then we make [*nunc*] a relative term, which hath a reference to *past* and future. But this is a wrong application; and if once we allow an *all-perfect Mind*, which hath an eternal, immutable, and infinite comprehension of *all things*, always (and allow it we must) the distinction of *past* and *future* vanishes with respect to such a Mind; and the expression *nunc stans* will appear to have propriety. In a word, if we proceed step by step, as above, the eternity or existence of the Deity will appear to be, *Vitæ interminabilis tota simul & perfecta possessio*, how much soever this may have been reckoned a paradox hitherto.

All this diffuse reasoning may (for the sake of memory) be comprised in two or three sentences. For, first, An infinitely perfect Mind must have a perfect comprehension of *all things*, always; and then, this Mind must always will what is infinitely reasonable, according to this infinite knowledge. From these two propositions it follows, That there can be no succession of ideas, nor change of will, in such a Mind. And, lastly, it must be as easy to Infinite Power to perform according to the rule of infinite reason, as to will the performance; for supposing difficulty denies infinity of power. And hence the actions of such a Being occasion no change in the manner of his existence; and yet, as directed by infinite reason, they cannot be physically necessary.

Thus we are come to the end of this tedious Enquiry concerning the Immateriality of the human soul, where the nature of the subject hath carried us through all the most abstruse and difficult points of natural Philosophy. The whole is submitted to the judgment of the Candid Reader. If any thing of importance hath been discovered, which may give a contrary turn to the present prevailing sceptical notions; this, with the variety and difficulty of the many things treated of, will, I hope, plead my excuse for such mistakes as do not affect the main design.

MUSEY  
BRITAN  
NICVI

F I N I S.

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